Country Experience

Abbreviations

ACNM	American College of Nurse-Midwives
AIDS	Acquired Immunodeficiency Syndrome
AZT	Azidothymidine (drug for HIV/AIDS)
BFHI	Baby Friendly Hospital Initiative
CBK	Clean Birth Kit
CEDAW	Convention on the Elimination of All Forms of Discrimination Against Women
CRC	Convention on the Rights of the Child
EOC	Essential Obstetric Care
FIGO	International Federation of Obstetricians and Gynaecologists
FGM	Female Genital Mutilation
FHI	Family Health International
FWCW	Fourth World Conference on Women
HIV	Human Immunodeficiency Virus
ICM	International Confederation of Midwives
ICPD	International Conference on Population and Development
IEC	Information-Education-Communication
MOH	Ministry of Health
MTCT	Mother to Child Transmission (of HIV)
OFA	Obstetric First Aid
PHC	Primary Health care
PIH	Pregnancy Induced Hypertension
RCM	Royal College of Midwives
RCN	Royal College of Nurses
RTI	Reproductive Tract Infections
STD	Sexually Transmitted Disease
TBA	Traditional Birth Attendant
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VCCT	Voluntary and Confidential Counselling and Testing (HIV/AIDS)
WES	Water and Environmental Sanitation
WHO	World Health Organization
WSC	World Summit for Children

Foreword

The causes of maternal death are the same for women everywhere but the particular vulnerability of women in the world's poorest nations is directly related to the non-fulfillment of several key human rights.

These include the rights of girls and women to adequate nutrition, to appropriate reproductive and maternal health care, to basic education, to a safe environment, to participation in decisions affecting their welfare, to freedom from discrimination and to protection from violence and abuse.

It is every girl's right to grow into adolescence and womanhood in a safe environment, to become pregnant by choice, to express her needs and beliefs, and to access effective and compassionate care.

Building safe motherhood programmes on a human rights foundation ensures sustainability. It helps to promote the broad, intersectoral action essential for improving maternal health and to generate behavioural change in favour of safe motherhood – not only among women, but also among adolescents, men, health workers, politicians and others.

Safe motherhood cannot be viewed solely as a health issue. Particularly in countries where death and disability from complications of pregnancy and childbirth are all too common, the pursuit of safe motherhood must be

Every minute of every day a woman loses her life due to complications of pregnancy or childbirth.

Every minute at least thirty more women begin suffering from maternity-related illnesses with consequences that sometimes last a lifetime.

Every six seconds a baby comes into the world in such a weak condition that he or she will die before a month has passed. For every one of these, another infant is born facing a lifetime struggle with disabilities.

Most of these deaths, illnesses and disabilities are avoidable through low-cost interventions that guarantee the right to safe motherhood.

based on an intersectoral approach and should be a specific component in our collaboration with all partners both inside and outside the government. It must involve decision-makers at the national and local levels, UN agencies, other international agencies and most importantly, civil society – the mass media, religious bodies, non-governmental and community-based organizations, schools, and communities.

Men as husbands, partners, neighbours and leaders need to become more actively involved in supporting women in making choices and taking actions to improve their health and well-being.

Communities, employers, the media, health workers, and the wider society need to work together to bring down the most common barriers that prevent women and infants from getting the care they need, especially the barriers of distance, cost, norms and customs.

Such efforts are essential not only for the health and survival of women, but also for their infants. Research indicates that the quality of care, stimulation and attention a child receives prenatally and through the first six years of life is important in setting the stage for life-long health, learning and behaviour. Not addressing these basic physical and psychosocial needs would result in the child being unable to reach her/his full human potential.

"Programming for Safe Motherhood" takes this broad approach and builds programmatic linkages between education, health, nutrition, sanitation, communication and gender. Each chapter is a stand-alone guide that outlines cost-effective interventions to address both the direct and indirect causes of maternal death including poor nutrition, lack of education, gender violence and abuse.

Community participation in the planning, design and implementation of programmes, better transport and communication systems, training of midwives, user-friendly health services and better referral systems are recognized as critical interventions. These interventions provide a springboard for action based on a growing body of knowledge and experience on how best to respond to the challenges of maternal health in resource-poor communities and nations.

In developing this Guide, UNICEF has had extensive consultations with our major partners, the World Health Organization, the United Nations Population Fund and the World Bank and benefitted from their inputs. The Guide is intended to help UNICEF country-level staff in their programming efforts and, therefore, represents UNICEF's own views in tackling the problem of maternal mortality by taking an intersectoral, rights-based approach.

This Guide, is to the fullest extent possible, "evidence-based", that is, it is based on evidence obtained from adequately conducted large- scale clinical trials of treatments or procedures. It needs to be recognzied, however, that in the poorest countries, evidence of the beneficial impact of certain potentially life-saving interventions may be lacking. Furthermore, because of the relatively low occurrence of outcomes such as maternal mortality, and because of the lack of priority given to supporting such research in low-income countries, obtaining evidence of the impact of interventions may take many years and be expensive.

***PROGRAMMING FOR SAFE MOTHERHOOD** is designed to support the work of UNICEF field staff but should also be of interest to government partners, NGOs, district level planners and project managers in developing countries and countries in transition.*

It is crucial for the international community to continue supporting the necessary research to improve our understanding of interventions particularly applicable to poor countries. At the same time, potentially beneficial interventions should not be withheld from populations pending the outcome of clinical trials and the availability of evidence.

Each maternal death is a failure and a tragedy. Protecting women and mothers is the responsibility and duty of each family, each community and each local and national government. A supportive environment needs to be created with the help of the media, and the international community.

The cost-effective interventions suggested in this Guide could help us achieve real progress. The possibility of bringing major improvements in maternal health, and of saving the lives and reducing the effects of maternal illness in millions of women and children, is a goal that is well within our reach.

We possess the knowledge and the tools to make permanent disability and death during pregnancy and childbirth almost as uncommon in poor nations as it is in the richer and more developed countries. This is one of the major challenges that UNICEF seeks to help countries achieve as we enter the next century.

Sadig Rasheed
Director
Programme Division
UNICEF Headquarters

October 1999

Background and Rationale for Action

Almost 600,000 women die every year from complications of pregnancy and childbirth.

For every one of these deaths, between 30 and 100 more women suffer from acute maternal morbidities that are painful, debilitating and often permanently disabling.

Of all the health statistics monitored by WHO, the largest gap between rich and poor nations is seen in maternal mortality levels. A woman in the developing world is almost 40 times more likely to die from complications of pregnancy and childbirth than a woman living in the industrial world.(Fig.1) Over 90 per cent of maternal deaths occur in Asia and Sub-Saharan Africa. India alone accounts for 25 per cent of such deaths worldwide while six other countries — Bangladesh, Ethiopia, Indonesia, Nepal, Nigeria and Pakistan — account for a further 30 per cent.

While many other health indicators have dropped sharply over the last two decades, maternal mortality rates and ratios have remained stagnant. The causes are rooted in the inappropriateness of many interventions intended to improve maternal health, as well as in the powerlessness of women. In particular, there is a clear connection between the low status of women and the risk of maternal illness and death.

Maternal death is most likely to occur in families where girls learn they have a lesser right to food and education than boys, and where women believe that their health is less important than that of other family members. Maternal death is more likely in communities where women hold the least economic and political power and yet carry a heavier physical work-burden. It is more likely in nations that give little priority to health services for women — including maternal care. It is most likely in cultures where maternal illness, suffering and death are viewed as natural, inevitable and part of what it means to be a woman.

Maternal Death refers to the death of a woman while pregnant or within 42 days of the termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Late Maternal Death is defined as the death of a woman from direct or indirect obstetric causes occurring more than 42 days but less than one year after the termination of pregnancy.

Source : Tenth Revision of the International Classification of Diseases (ICD-10)

Maternal Mortality Ratio: the number of maternal deaths per 100,000 live births. This measure indicates the risk of maternal death among pregnant and recently pregnant women.

Maternal Mortality Rate: the number of maternal deaths per 100,000 women aged 15-49 per year. This measure reflects both the risk of death among pregnant and recently pregnant women and the proportion of women who become pregnant in a given year.

Maternal death statistics are often inaccurate because of extensive under-reporting and miss-classification, especially of deaths occurring during pregnancy. Process indicators — such as the proportion of professionally attended births and the number of referrals of emergency cases — provide a more reliable illustration of trends in maternal health.

The incidence of maternal death is therefore directly related to the human rights of women — and is most prevalent in societies where women's rights are most frequently denied and violated. As a result, complications of pregnancy and childbirth are among the leading causes of death, disease and disability among women of reproductive age.

Diseases like HIV/AIDS, tuberculosis and malaria also inflict a heavy and growing toll on women of reproductive age. According to a 1998 WHO report, between 5 and 15 per cent of the global disease burden is associated with failures to address reproductive health needs. Globally, among women of reproductive age, more than 20 per cent of total years of healthy life is lost due to three main areas of reproductive health — sexually transmitted diseases including HIV/AIDS, maternal mortality and morbidity and reproductive tract cancers. The heaviest toll falls on infants — 6 million of whom die every year in the first month of life, due mainly to the poor reproductive health of their mothers. When mothers die, their surviving children are also at risk, especially their surviving daughters. One study from Bangladesh showed that surviving children were three to ten times more likely to die within two years compared with children who lived with both parents.

When a woman loses her life, the government loses its investment in her health and education. The economy loses her contribution to the workforce, and communities lose a vital member whose unpaid labor is often central to community life.

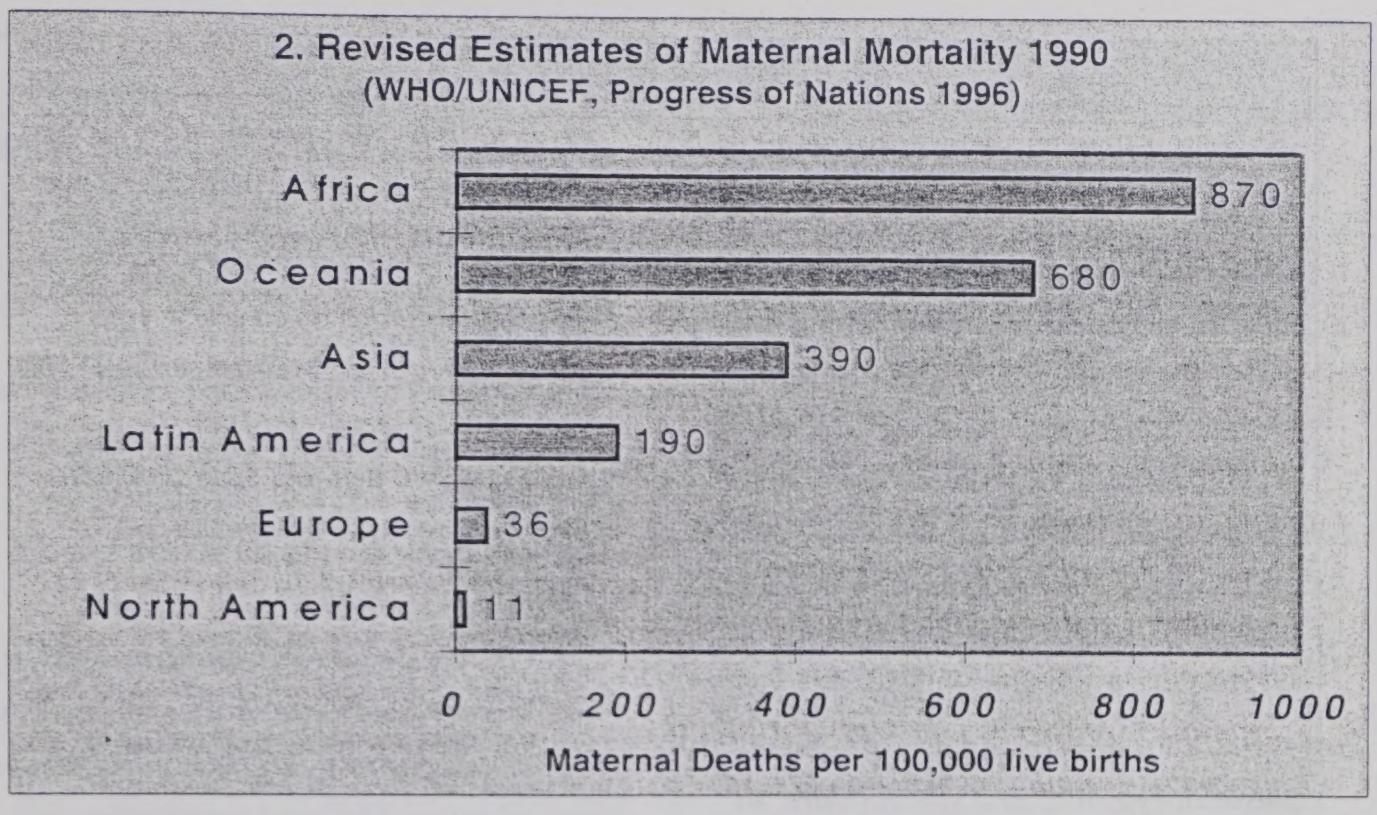
Building Women-Friendly Societies

Today, there is great reason to hope that progress can be made in reducing maternal mortality. Firstly, because the practical solutions required to improve the access, availability, quality and use of maternal health services are known and affordable — estimated at a cost of about US $3 per capita, per annum. (*See The Cost of Maternal Care, page 14*)

Secondly, because there is greater awareness of the importance of integrated approaches to development. Maternal health depends on so many factors in the lives of girls and women, that multisectoral approaches are essential — involving action in the fields of education, legislation, water-supply and the media as well as in the health sector. Within the health sector also, there is a need for more integrated planning, so that maternal, reproductive and child health services, for example, are able to build on each others strengths and influences.

1. Women's Lifetime Risk of Maternal Death

Africa	*1 in 16*
Asia	*1 in 65*
Latin America & Caribbean	*1 in 139*
Europe	*1 in 1400*
North America	*1 in 3700*
Poorer Nations	*1 in 48*
Wealthier Nations	*1 in 1800*



Thirdly, because the idea that all citizens possess equal rights to health, education and other social services is becoming more widely accepted by lawmakers in many countries. It is growing hand-in-hand with the realization that the achievement of greater **equity** depends on the **participation** of citizens, families and communities. These trends are important for building societies based on the fulfillment of human rights and are particularly significant for women.

Despite continuing inequality and discrimination against women, there are indications of positive change :

— In the number of countries endorsing international human rights treaties like the CEDAW and the CRC.

— In the articles backing equity and non-discrimination that have become central to many national constitutions.

— In the increased emphasis placed on putting this legislation to work for the benefit of disadvantaged populations — by local and national politicians, civil society groups, NGOs, UNICEF and other international agencies.

This programme guide builds on these important trends, outlining strategies and interventions that have been found most effective in improving maternal and neonatal health. Collectively, they will aid the development of women-friendly societies and help to create an environment in which motherhood becomes safer. .Women-friendly societies guarantee that girls attend school and that girls and women have access to adequate nutrition and health services. In women-friendly societies, husbands, parents-in-law, other family members, neighbours, communities and nations all actively encourage women to protect and improve their health and to use maternal health services.

Until now, the goal of reducing maternal mortality rates by half has been among the most intractable of the goals set at the 1990 World Summit for Children. It is hoped that this guide will assist UNICEF Country Offices and partners in mobilizing powerful support for better maternal health — and so bring profound benefits for nations, communities, families and children, and especially for women themselves.

Four Actions For Building Women-Friendly Societies

— Treat women's access to safe motherhood as a human right under international conventions such as the CEDAW and CRC.

— Encourage governments to make sustained investments in safe motherhood.

— Establish women-friendly health and nutrition services to provide a basic minimum of quality obstetric care for women and their infants.

— Encourage family and community support for safe and wanted pregnancies and deliveries.

The Cost of Maternal Care

WHO estimates that an investment of US $3 per person per year can prevent the overwhelming majority of maternal deaths, half of infant deaths, and the painful and often life-long disabilities that millions of women suffer in low-income, developing countries. This amount includes basic antenatal care and nutrition for pregnant women, assistance at delivery by a health professional, neonatal care, the promotion of family planning during the postnatal period, and special care in case of complications. WHO developed a tool for estimating the cost of implementation of the Mother Baby Package. The "Mother and Baby Package Costing Spreadsheet" will be available in 1999. (see Fig.3)

The World Bank estimates annual per capita costs for a Safe Motherhood programme at between US $1 and US $5 according to the level of development of health systems. Annual costs of the interventions per pregnancy are estimated at US $28 in low-income settings, to US $34 and US $57 in more developed settings.

☆ *In Bangladesh, the total cost of providing Essential Obstetric Care in a district was approximately US $150,000. This amount included the provision of Basic Care in Health Centers and Comprehensive Obstetric Care in district hospitals. Capital costs included renovation, equipment and training. Recurrent costs included drugs and supplies, in-service training, IEC and evaluation. With an average population of 1.7 million per district, the programme cost amounted to US $0.08 per capita per year, or US $2.75 per birth for 50,000 births per year.*

☆ *In 6 countries in West Africa, district health systems were rehabilitated with similar financial inputs : between US $100,000 and US $200,000. This amount covered infrastructure, equipment, transport (vehicles for emergencies, outreach and supervision) and communication (short-wave radios, and/or telephones), staff training, drugs and supplies, IEC and monitoring. Restructuring district health networks, with community involvement in design and management of the referral system, took from 6 months to 2 years — and made significant use of systems established through the Bamako Initiative. Recurrent costs are now distributed between the state, the village committees and families themselves, who together pay for up to 75% of the expenses. Post-payment schemes are put in place, especially in case of emergencies, with over 95% of recovery of expenses.*

In Mali, Togo and Benin, it costs US $50-80 to perform a Cesarean-section (including staff time, running costs of operating theater and supplies.) The average cost for emergency transportation amounts to US $6.

In virtually all settings, people pay for some health services. They buy a variety of medicines, and often pay charges for hospital care, including deliveries. They also pay TBAs in cash or in kind for their services. Most rural communities in Africa are ready to support in part the

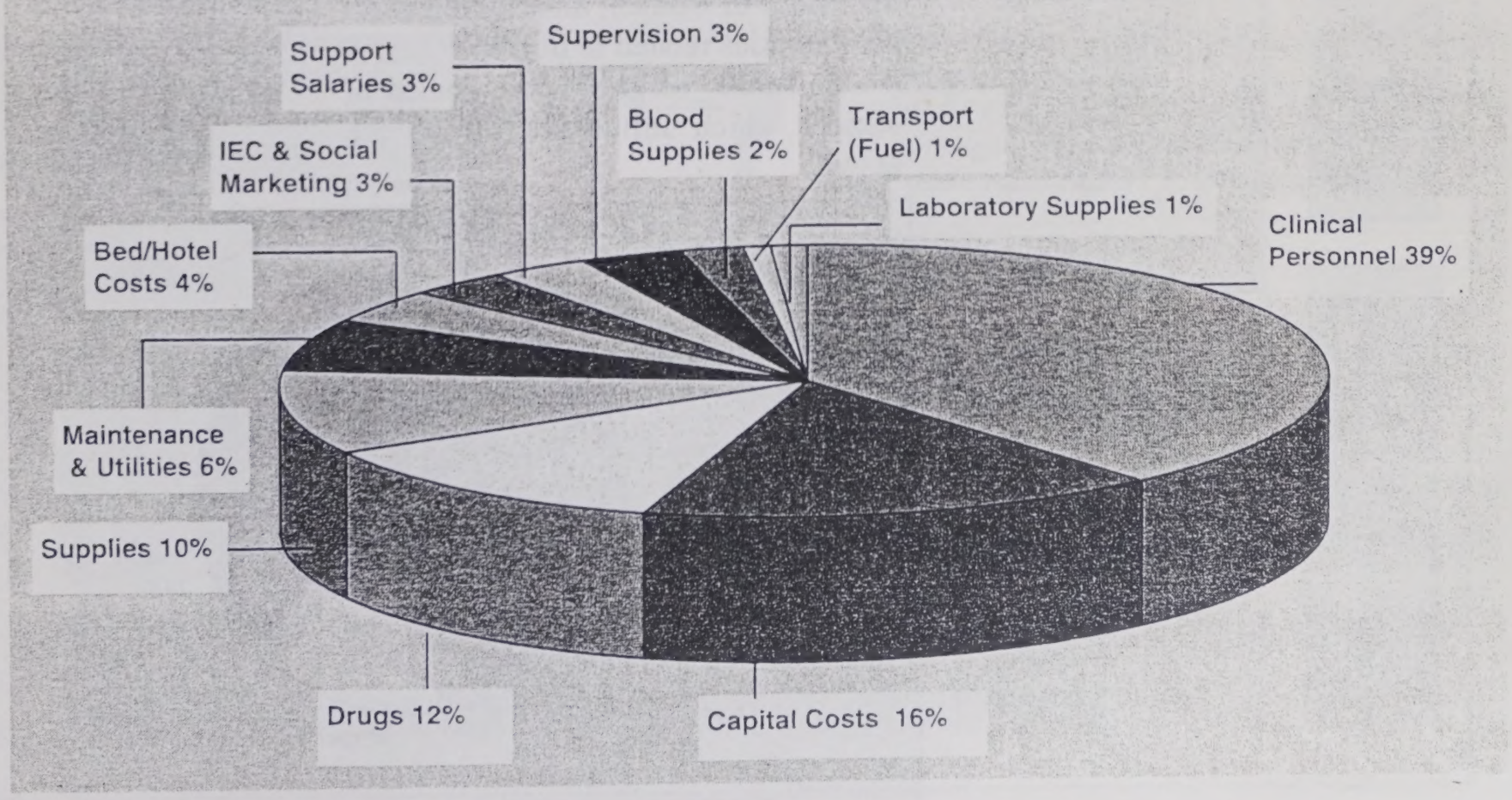
cost of services because most communities consider maternal survival as a priority.

There are four basic health sector financial models : 1) state financed health services 2) social insurance policies 3) private systems 4) third party insurance payment in which individuals and employers purchase coverage. The two last models leave large population groups without health coverage. As a high proportion of women belongs to the poorest groups, they may be differentially affected by lack of coverage and the degradation of socio--economic conditions..

☆ *Where insurance exists, consideration should be given to coverage of maternity care, especially for low income women. Since 1996, insurance schemes in Bolivia have provided free services to pregnant women and children under five in 300-plus municipalities. Coverage includes four prenatal visits, hospital delivery including care for complications, and one postnatal consultation. The central government covers the salaries of health personnel, the municipalities pay for drugs and supplies-previously the responsibility of the patient. In the first years of implementation, prenatal coverage has increased by 80%, hospital-based deliveries by 48% and care for emergency cases by 90%.*

Analysis of the cost effectiveness of the interventions recommended in this guideline can be used to help set priorities, aid the selection of delivery strategies, and help to ensure that resources are allocated effectively.

3. Relative Costs of Implementing the Mother-Baby Package (WHO 1997)



Causes of Maternal Illness and Death

Haemorrhage, sepsis, hypertensive disorders, obstructed labour and unsafe abortion account for about 80 per cent of maternal deaths worldwide

The Framework for Assessing and Analyzing Maternal Health (Fig. 5 opposite) illustrates key factors influencing maternal illness and death.

The direct causes of maternal mortality — principally haemorrhage, sepsis, hypertensive disorders, obstructive labour and unsafe abortion — are the same for women all over the world. However, approximately 20 per cent of pregnancy-related deaths in developing countries are indirect deaths due to pre-existing conditions such as anaemia and malaria that are aggravated by pregnancy. Many other underlying factors influence the capacity of women to survive complications emerging during pregnancy and childbirth, including:

— women's health and nutritional status from childhood as well as during pregnancy;

— women's access to and use of appropriate health services;

— the knowledge, attitudes and behaviour of women, their families and communities related to health;

— the status of girls and women in society which influences all of the above.

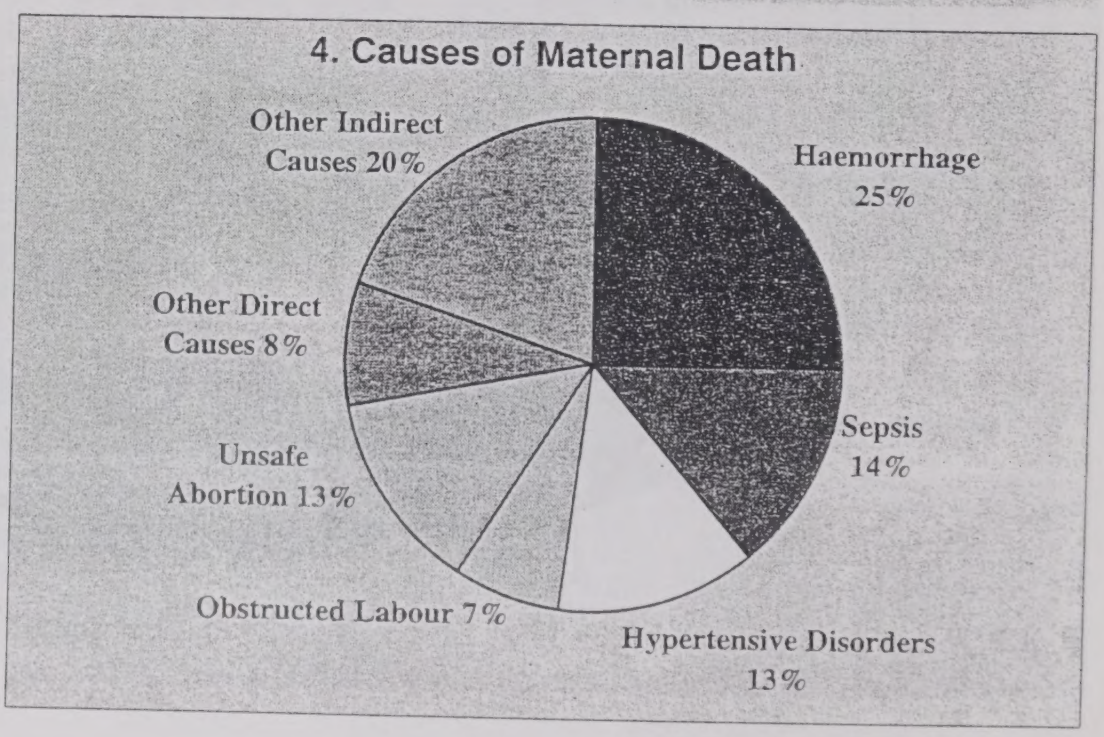
For Every 100 Women Who Become Pregnant

— 40 will experience some complication during pregnancy, childbirth or the post-partum period

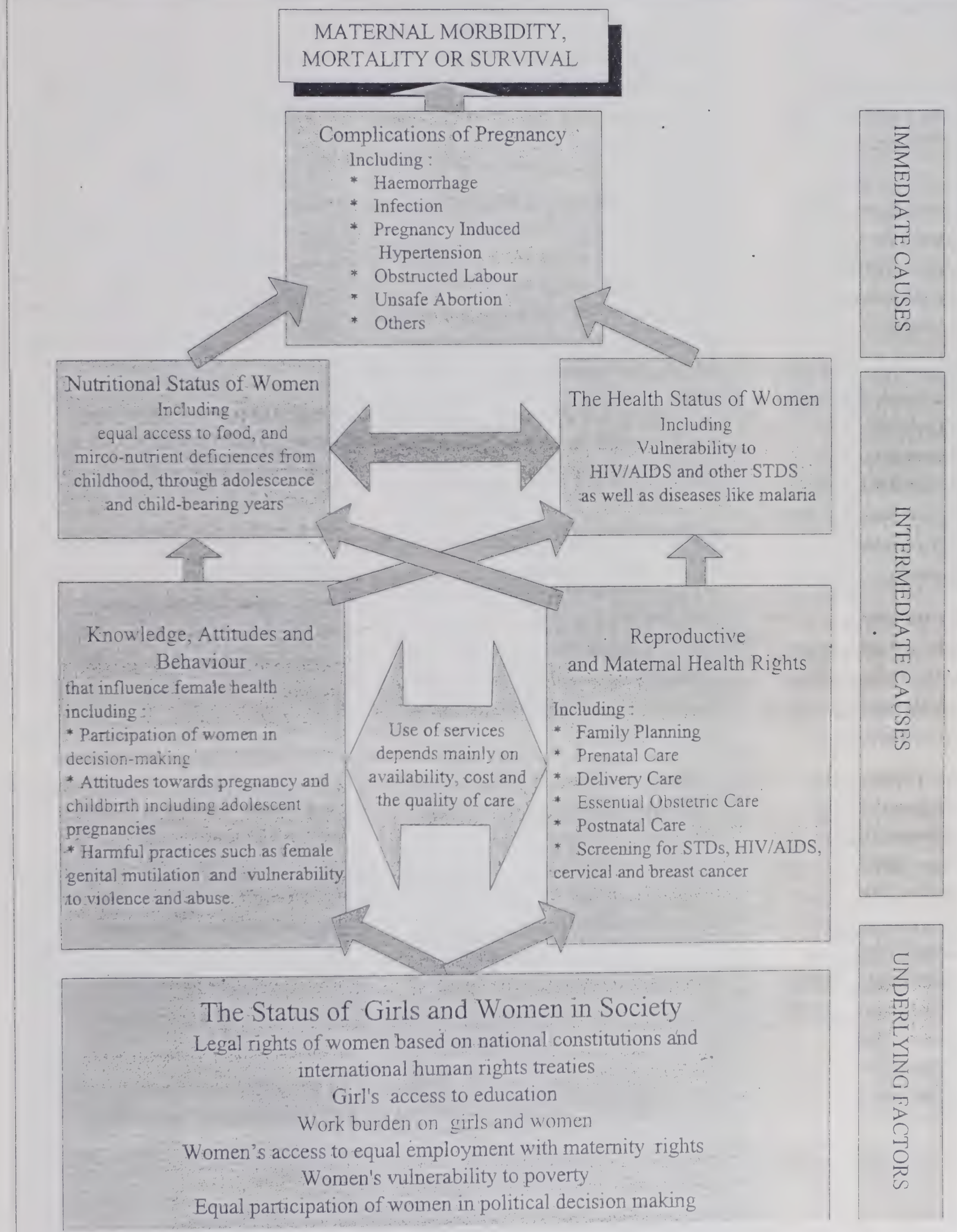
— 15 will develop life-threatening complications, mostly around the time of birth

— 5 will require a surgical intervention, usually a Caesarean section

If the Caesarean rate is below 5 per cent this indicates that many women are being denied access to essential life-saving surgery.



5. Framework for Assessing and Analyzing Maternal Health



Adolescent Pregnancy and Health

Eleven per cent of all births worldwide are to adolescents.

Each year, young women aged 15-19 account for at least five million induced abortions, most of which are unsafe.

Complications related to pregnancy, childbirth and abortion (spontaneous and unsafe) are major cause of death among teenage girls and sometimes lead to sterility.

The risk of maternal death for adolescents under 18 is two to five times greater than for women older than 18.

Physical immaturity increases the risk of prolonged or obstructed labour, which can result in maternal death, as well as devastating complication such as obstetric fistulae (holes in the vaginal wall that make a woman permanently incontinent).

Discrimination and Women's Health Across the Lifespan

Discrimination against girls and women is reproduced through families and communities. Mothers may show preference for sons over daughters — a prejudice that can be exhibited even before birth with the induced abortion of female fetuses. Cultural beliefs about health and illness, about pregnancy and childbirth, about gender, work, education, health and other social services all have a bearing on the development of girls and women, and ultimately on maternal health.

— In infancy and childhood, girls may receive less nutritious food, leading to impaired physical development that lays the groundwork for life-long and inter-generational health problems. In some cultures, girls may receive less preventive health care and less timely attention when they fall ill. Female genital mutilation is another significant problem in some cultures that may lead to acute and chronic disability and in some cases, death.

— Adolescent Girls : Limited access to health information and services and vulnerability to sexual abuse puts adolescents at greatest risk of unwanted pregnancy. Every year adolescents give birth to 15 million infants, 11 percent of all births. They are especially vulnerable to sexually transmitted diseases including HIV/AIDS, particularly in countries where older, relatively wealthy men trying to avoid these diseases prey on poorer school-age girls. The social stigma attached to unexpected pregnancy or STDs may mean some adolescents are abandoned by their families. At the very least, pregnancy almost always means that girls have to leave school. Such problems set the stage for increased vulnerability to poverty, violence and multiple and closely-spaced births as they move into adulthood.

— Women : Discrimination during their early years takes a toll on women's health and maternal survival. Cultural beliefs about pregnancy and childbirth exert a powerful influence on the way women respond to their own health needs. It also influences the kind of support they receive from family members and the wider community. In some cultures, for example, women are expected to maintain the same heavy work burden throughout pregnancy or to give birth alone.

Women and their families are sometimes reluctant to use health services or seek care from a skilled attendant, even where these services exist. Indigenous women, impoverished women and others from ethnic minorities often face discrimination from health workers. In some cases, patient and health worker do not even speak the same language or medical practices directly conflict with the local cultural beliefs — for example, regarding disposal of the placenta which should be burned or buried according to some customs.

Greater understanding and a sense of partnership between health workers and communities will aid the transference of better health practices.

The Status of Girls and Women

Girls with only limited access to education, become women who have only limited access to employment and who are therefore much more vulnerable to poverty. Such women typically carry a heavier physical work burden than men, work longer hours for less pay and possess little control over family resources. Their dependency leaves them more vulnerable to physical and sexual abuse, to sexually transmitted diseases including HIV/AIDS and to unwanted pregnancies. They are often excluded from key decisions concerning their welfare, are more likely be poorly nourished and to face barriers in the use of health services.

Even when laws protecting women's rights do exist, the vulnerability of poor women means they are less likely to use them — whether against an exploitative employer or a violent partner. The low status of women exerts a profound influence on the way societies, communities, families and women themselves respond to their health needs. It also influences levels of investment in maternal health services and the quality of care women receive through that system.

The Availability and Quality of Maternal Health Services

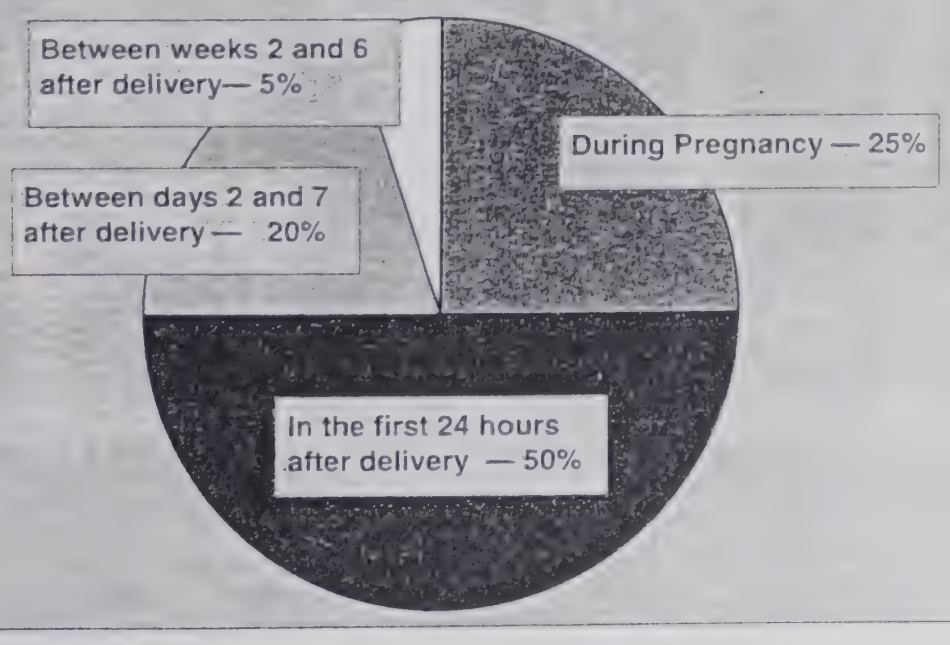
At least 40 per cent of women who become pregnant experience some complications during pregnancy, childbirth and the postpartum period and about 15 per cent develop life-threatening complications mostly at the time of birth. At least 5 per cent require surgical intervention, in most cases a Caesarean section. With so many women experiencing difficulties during pregnancy and childbirth , access to and use of maternal health services, including access to essential obstetric care when emergencies arise, can be crucial for their survival. Apart from clear risk factors, such as previous experience of difficult labour, it is virtually impossible to predict which women will experience a maternal emergency. *(See Every Pregnancy Faces Risks, page 20.)* All women therefore need access to maternal health services.

The limited scope of maternal health services is often attributed to cost, yet the cost need not be

For every woman who dies from the complications of pregnancy, between 30 and 100 more women suffer from acute complications that are painful and debilitating. These include:

- *anaemia*
- *uterine prolapse*
- *pelvic inflammatory disease and infertility*
- *incontinence*
- *lower genital tract injuries such as vesico-vaginal fistulae.*

6. When Do Maternal Deaths Occur?



Midwives : A Global Shortage

Access to professionally qualified midwives during delivery is one of the keys to reducing maternal death. Throughout the developing world, however, there is a chronic shortage of midwives — and this is most acute in rural areas. In parts of Asia and Africa, there is only one midwife for every 300,000 people, meaning one midwife for every 15,000 births. The recommended ratio is one midwife for every 5,000 people.

Every Pregnancy Faces Risks

Some women are more likely to develop pregnancy complications that others (for example, if they had a complication during a previous pregnancy.) However, it is almost impossible to predict which individual woman will develop a life-threatening complication.

Risk assessment was developed to help health providers allocate their time and resources to the women who need them most, especially in communities with limited resources. However, a review conducted by WHO found that risk assessment has not been an effective strategy for preventing maternal death.

A study in Zaire found that 90 per cent of women who were identified as "at risk" for obstructed labour in fact experienced no complications during delivery, while 70 per cent of women who did develop obstructed labour had no previous history of difficult delivery.

Other problems of the risk approach include:

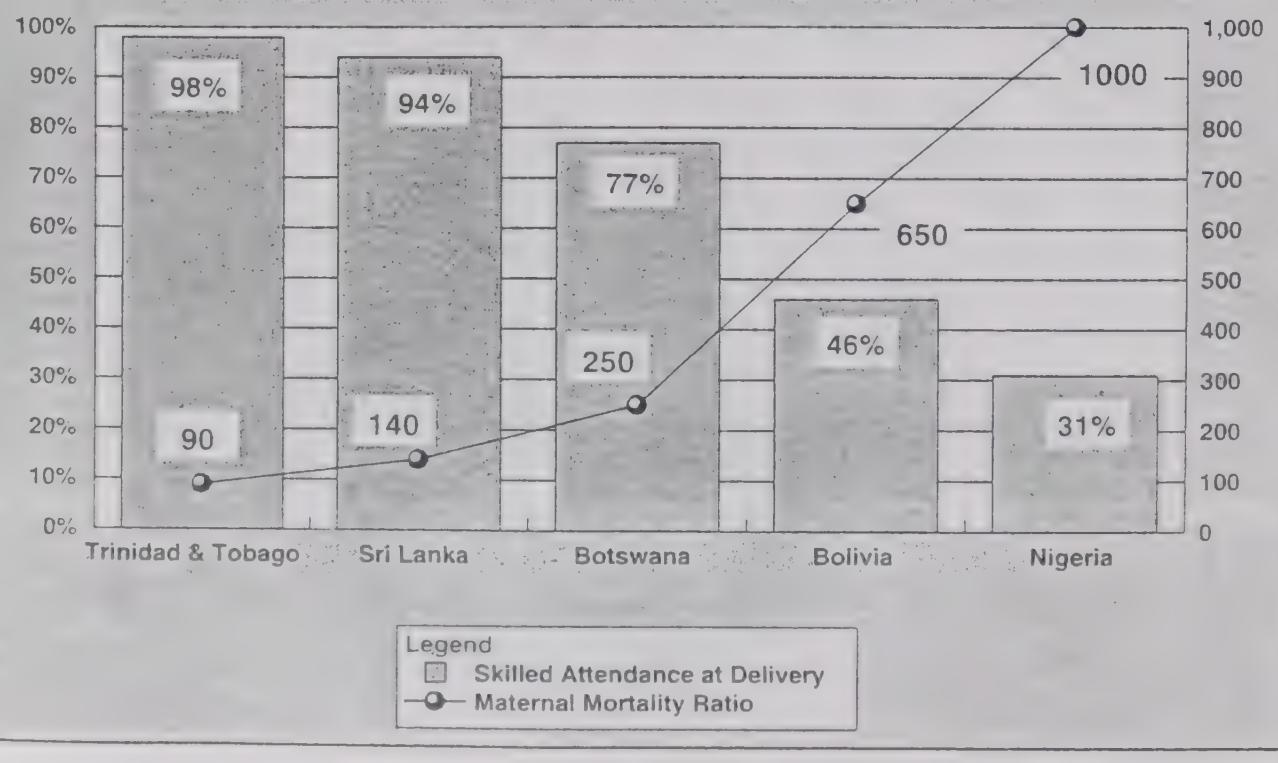
— Even if a woman is correctly identified as being at risk she may not receive appropriate care — because health systems are inadequate or the woman is unwilling or unable to access care.

— Women regarded as low-risk may fail to recognize complications quickly enough because they have been lulled into a sense of false security.

— Women identified as high-risk may waste valuable time and scarce funds seeking unnecessary treatment.

Since risk assessment cannot predict which women will experience pregnancy complications, it is essential that ALL women and family members can identify dangerous signs during pregnancy and childbirth, know where to seek help and have access to quality maternal care.

7. Skilled Attendance at Delivery and Maternal Mortality Ratios
Selected Countries, WHO/UNICEF 1996



exorbitant. *(see The Cost of Maternal Care, page 14)* In most countries, even the poorest, district level health units and hospitals exist that could provide effective care, even for emergency cases:
— if night and emergency surgical services were offered
— if minimal upgrading or repairs were introduced
— if better links were developed with surrounding communities that helped women overcome obstacles to seeking care.

Prenatal Care : Nearly a quarter of all maternal deaths take place during pregnancy. While most women in developing countries – 65% — now make at least one prenatal care visit, over one-third of women never receive any prenatal care.

Health care during pregnancy serves many purposes that benefit both mother and child, allowing:
— Assessment and appropriate interventions related to maternal health and nutritional status, and fetal development.
— Prevention or management of diseases that can have particularly adverse effects during pregnancy;
— Counselling during the pre-natal period can alert women and family members to danger signs, encourage women to take better care of themselves during pregnancy (e.g. rest and good nutrition) and provide women with the opportunity to ask questions.
— Planning and preparation for birth (e.g. to arrange for a skilled attendant, obtain a Clean Birth Kit (*see page 61* .)

Prenatal care also provides an important entry point for women into the health care system. Good quality care in the prenatal period builds positive relations between providers and women and encourages women to seek further help during delivery, the postnatal phase and for their children. Poorly delivered care usually has the opposite effect.

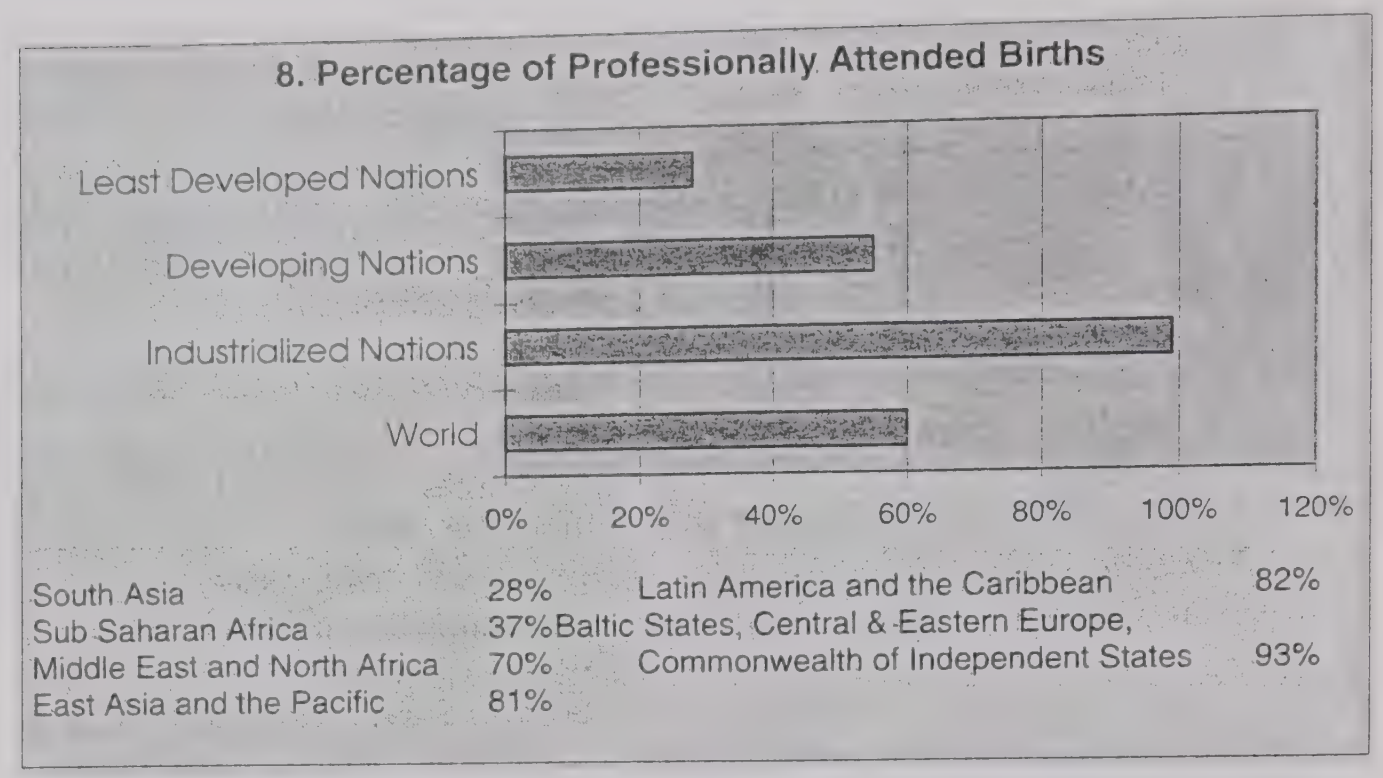
Delivery Care : Every year about 40 per cent of all deliveries take place without the assistance of a skilled birth attendant. There is a direct correlation between the percentage of professionally attended births and maternal mortality ratios. *(Fig.7)* Similar data reveals a direct correlation between professionally attended births and neonatal survival. The majority of deliveries without professional assistance occur in developing countries *(Fig.8)* where they are attended instead by a traditional birth attendant, a family member — or no one at all.

The availability of **Essential Obstetric Care** (EOC) when complications arise during pregnancy or delivery is almost always critical for women's survival. Even where EOC services are available, a substantial number of maternal deaths occur because women with obstetric complications fail to receive appropriate care soon enough to save their lives.

Delay in recognizing the need for care, seeking care, reaching care and obtaining appropriate care are major factors leading to maternal death.

Postnatal care : Less than 30 per cent of women receive postnatal care. In very poor regions and countries, as few as 5 per cent of women receive such care compared with about 97 per cent of women in developed countries.

For women who give birth without professional delivery assistance, prompt postnatal attention is particularly important since half of all



maternal deaths take place within one day of delivery. Overall, 70 per cent of deaths occur within the first week. This is particularly true of deaths due to haemorrhage and pregnancy-induced hypertension. Most deaths due to sepsis occur more than seven days after birth.

Family Planning Services : Reducing maternal and child mortality cannot be achieved without better addressing the unmet demand for family planning. Implicit in the consensus to "approach family planning in the context of reproductive health" is the agreement to seek a much more effective integration of services.

The vulnerability of women to maternal morbidities and death is increased in developing countries partly because women tend to give birth to more children. Between 120 and 150 million women who want to limit or space future pregnancies are unable to do so because family planning services are unavailable, inaccessible, unaffordable, of poor quality or because their use is restricted. UNICEF does not use its funds to directly support family planning activities but the agency does cooperate with UNFPA, other agencies and governments to enable adolescents, women and men to have access to information and services that will allow them to make appropriate choices.

Health and Nutritional Status

Women who enter pregnancy well-nourished and in good health are more likely to survive an obstetric emergency. In many poor communities, however, the inter-play between poor nutrition and debilitating diseases including sexually transmitted diseases, malaria and tuberculosis among others, means that many women are unhealthy at the onset of pregnancy. They are already at a disadvantage if an obstetric emergency arises. For example, about 56 per cent of women in developing countries suffer from anaemia — caused by parasitic infections from malaria and hookworm and/or from inadequate intake of iron and folic acid — and as a result face an increased risk of maternal death from haemorrhage and infection.

As the main care-givers to family members who fall sick, women are more exposed to contagious diseases. Yet when they do fall ill they often

Maternal Health and Infant Survival

Maternal and perinatal health are inseparable: the major risk factors for disease and death among mothers and their newborns are the same. A maternal death almost always means death for the fetus.

Infant mortality (death up to 12 months of age) has fallen worldwide over the past two decades, particularly in developing countries. However, death during the perinatal period (stillbirths and deaths during the first week of life) has fallen only slightly (from 64 to 57 per 1000 births.)

Perinatal and neonatal deaths are largely the result of poorly managed pregnancies and deliveries. Often, traumatized infants may survive but become physically or mentally disabled for the rest of their lives.

Perinatal deaths : WHO estimates that about 7.6 million perinatal deaths occur each year, of which some 4.3 million are stillbirths. Ninety-eight per cent of perinatal deaths occur in the developing world.

Neonatal deaths : Of the nearly 8 million infant deaths each year, around two-thirds occur during the neonatal period (the first month of life). About 3.4 million deaths occur in the first week. Three countries -- Bangladesh, India and Pakistan -- account for 37 per cent of the world's neonatal mortality.

Causes of Infant Mortality : Eighty-five percent of newborn deaths are due to infections, birth asphyxia and birth injury and problems linked with pre-term birth.

Disability : For every neonatal death another child is born with a physical disability.

Low Birth Weight : Every year 22 million low birth weight babies (who weigh less than 2500 grams) are born. These babies have a death rate that is 5 to 30 times higher than that of normal-weight babies.

Malaria : Malaria during pregnancy is believed to account for 5-10 per cent of infant deaths associated with low birth weight. Malaria can result in premature birth, miscarriage and low birth weight.

These stillbirths, deaths and disabilities largely result from poor maternal health and nutrition and inadequate care during pregnancy, delivery or the first critical hours after birth. Reducing perinatal and neonatal deaths demands major improvements in the health and nutrition of women. Many early neonatal deaths could also be prevented by good quality professional delivery care and postnatal care.

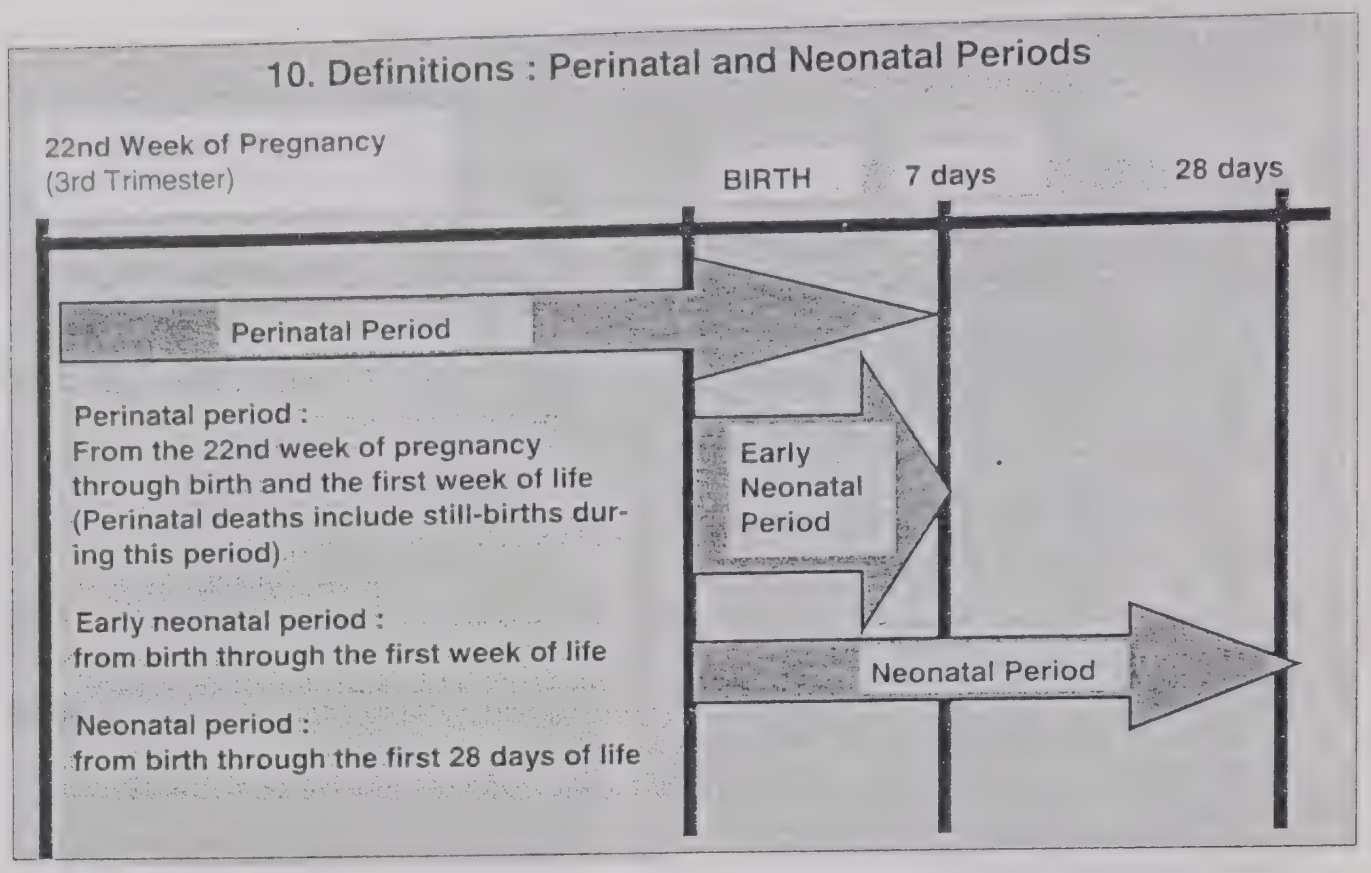
9. Perinatal and Neonatal Mortality

	Perinatal	Neonatal
	Deaths per 1,000 live births	
Africa	*75*	*42*
Asia	*53*	*41*
Latin America/ Caribbean	*39*	*25*

Perinatal Data

Perinatal mortality includes both fetal deaths and deaths in the first week after birth. In covering the overlap between the fetal stage and birth, the perinatal concept avoids conflicting judgements as to whether a fetus exhibits signs of life or not and differences in administrative practice regarding whether or not these deaths should be counted.

Perinatal data also provides the clearest indication of the impact of maternal health on infant survival — since most perinatal deaths are connected with maternal health.



lack support, sufficient rest and nutritious food that would allow them a full recovery. Women in impoverished communities and areas where diseases like cholera or malaria are endemic are therefore more likely to be progressively weakened by disease, and to face greater risks when they become pregnant and give birth.

Improving the way families and communities care for women when they fall ill is one of the behavioural issues that needs to be addressed in order to build women-friendly societies and ensure safe motherhood.

Knowledge, Attitudes and Practices (KAP)

Lack of knowledge is one of the principle underlying causes of maternal death — particularly when women and their families fail to recognize danger signs, do not realize the importance of swift action, and do not know where to go to seek help.

Attitudes towards girls and women influence their status in society, their ability to receive education and make their own decisions about seeking health care.

Custom often dictates what a woman should and should not eat during pregnancy, how she should give birth, what she should wear during delivery and who should be present at the birth. Some traditions are not harmful to either mother or baby — but others are less benign and expose women, and their unborn infants to increased risks. In some parts of Nepal, for instance, women are expected to give birth alone. In some communities in the Bolivian Andes, women are expected to maintain the same heavy work-burden throughout pregnancy.

Sometimes, women do not use health services because their own traditions are ignored. By accommodating non-harmful practices, service providers can begin building a foundation for greater trust and cooperation. This will create opportunities for increasing knowledge and addressing practices that are potentially harmful to women and their unborn children.

Economic Crises and Maternal Health

The first sign of economic deterioration in maternal health services is usually felt in a shortage of supplies, secondly in the loss of professional staff and thirdly in the steady deterioration of infrastructure. At the same time there is a deterioration in the quality of care that undermines the trust people may have had in those services.

In Guyana and Suriname, chronic deterioration in health services means that the proportion of women seeking professional care during pregnancy and childbirth has declined in some areas over the last decade.

Sudden and severe economic upheaval in Indonesia and Thailand in 1997 led to cutbacks in some reproductive health programmes.

The break up of the Soviet bloc also brought declines in health services including reduced access caused by the introduction of user fees in a time of economic chaos. Health services were heavily over-staffed but drastic reductions of up to half of all health workers, led to major disruptions in services. Lack of investment meant rapid deterioration of health infrastructure.

During such crises, UNICEF's role is to ensure investment in maternal and infant health services is maintained as a priority by governments. The agency should closely monitor trends in the use of maternal health services as an indicator of deterioration in the quality of care, and of potential increases in maternal death rates.

Lessons Learned

Professional and good quality delivery care for home births and in institutional settings is essential for the reduction of maternal mortality.

Most complications occur at the time of childbirth or soon afterwards, and the presence of a well-trained nurse, midwife, doctor or other health worker is crucial for the urgent action that will save lives.

Over the past ten years, international consensus has emerged on the following factors that are critical to reducing maternal mortality:

Reducing gender inequality and discrimination improves women's choices and their ability to gain access to health care.

Safe motherhood is primarily a matter of women's empowerment and access to social justice. Changes in service delivery and accessibility are necessary but on their own will not be sufficient to bring a dramatic reduction in maternal mortality. In too many communities, and nations, a high incidence of maternal death is still seen as an unavoidable and natural disadvantage of pregnancy. In fact it is more often the outcome of a collection of discriminatory practices against girls, adolescent girls and women that leave them inadequately educated, poorly nourished and with low self-esteem. New perceptions need to emphasise the link between social injustices suffered by women, maternal death, and the future health of children and nations.

Improving nutritional status before and during pregnancy with iron, folate and multi-vitamin supplementation is effective in preventing some maternal deaths.

Increasing girls' access to education : there is a clear relation between girls access to education and literacy and reduced maternal mortality.

Professional delivery care is at the centre of most successful efforts to reduce maternal illness and death. Women attended by professionals are more likely to avoid serious

Checklist

— Reducing gender inequality

— Improving nutrition

— Increasing girls' access to education

— Promoting professional delivery care

— Building effective referral systems

— Ensuring maternal care for all women

— Developing district-level planning and community participation

— Using process indicators to evaluate progress

Key Factors in Reducing Maternal Death

Evaluations in several low-income countries including Sri Lanka, Kerala State in India, Cuba, China and in the former Soviet Union established the success of several interventions that effectively reduced maternal mortality. These included:

— education for all

— improved access to basic health services and nutrition before, during and after childbirth (including family planning and appropriate vitamin and mineral supplements);

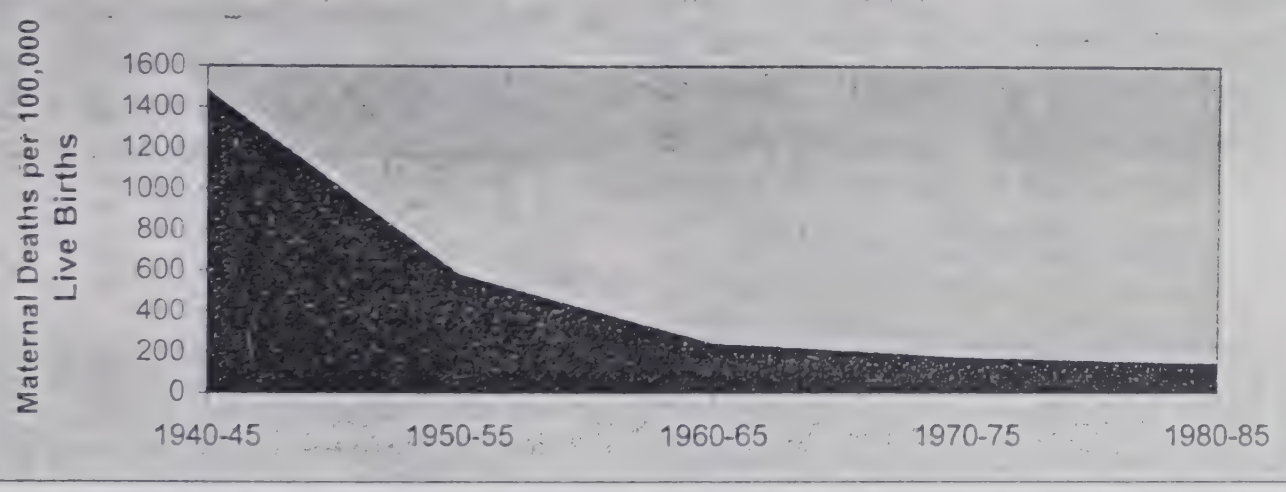
— attendance at birth by professional birth attendants (midwives, doctors);

— access to essential obstetric care when complications arise; and

— policies that raise women's social and economic status, and their access to property and other resources, as well as to the labour force.

☆ *In these countries, the toll of maternal mortality and morbidity was reduced through the synergistic effect of combined interventions. For example, in Sri Lanka, maternal mortality dropped dramatically from 555 per 100,000 live births in the 1950s to 239 per 100,000 in the 1960s, and 95 per 100,000 in 1980. By 1990, MMR in Sri Lanka was 30 per 100.000 live births while Ivory Coast had a rate 830 — yet both countries have a similar gross national product or average annual income per capita of $700.*

11. The Decline in Maternal Mortality in Sri Lanka, 1950-85



complications, and to receive treatment early, when the situation can still be controlled. Professional attendance is as important for home births as well as for deliveries at health centres, maternity homes and hospitals.

The demand for professional attendance at birth increases with urbanization and girls' education. Maternity Waiting Homes have sometimes been established to enable women from more remote communities access to professional delivery services. These have not proved to be cost-effective or efficient as a means of reducing maternal death because **all women** need access to professional delivery care.

Training of traditional birth attendants has apparently had little impact in reducing the risk of maternal death, although it has had some positive benefits in reducing neonatal deaths due to tetanus.

☆ *In MALI, obstetric services are paid for on a cost-sharing basis between village health committees and district authorities. A post-payment arrangement ensures that financial barriers will not impede emergency care. Nurses in health centers are sometimes employed and paid by the community.*

Building effective referral systems is important for ensuring that women who need emergency attention are able to obtain it. Effective health care in rural areas depends on team-building and strengthening links between community health care workers and the formal health system. Establishing a maternal health team is part of this process. Strong links between trained, literate, community-based birth attendants and local health centres and hospitals are important for effective referral and depend on :

— good communications

— the availability of appropriate transportation and

— timely decision-making.

Ensuring Emergency Maternal Care for All Women : every pregnant woman is vulnerable and can develop sudden, life-threatening complications that require quality obstetric care. Attempts to predict these complications before they occur have not been successful. Therefore, maternal health programmes must ensure that **all women have access to essential obstetric care (EOC).**

District-Level Planning with Community Participation : It has been demonstrated time and again that interventions that do not incorporate active involvement by communities are destined to fail; community acceptance of an intervention is critical to its success, and is best ensured if the initiative and responsibility for implementation come from the community. Achieving better maternal care therefore needs to involve active collaboration between health workers, women, families and communities. The opportunities for success are high since communities often identify the reduction of maternal and neonatal deaths as a priority for action.

Large-scale programmes based on community cooperation have become more feasible in countries where health services are being decentralized. In South Asia and in Sub-Saharan Africa, district-based projects are being developed and often benefit from strong community support. This is particularly the case in rural areas. Urban communities present other challenges but, depending on the social make-up of the community, participatory approaches can still be successful.

Maternal Care in Sweden c.1900

Three quarters of developing countries now have maternal mortality ratios higher than Sweden in 1900. At that time in Sweden most deliveries took place at home attended by professional midwives. However, strong political will, the accountability of local authorities, the presence of professional midwives attending home births and appropriate information systems helped Sweden achieve the lowest MMR in Europe at 228 by 1900 — and without the sophisticated technologies associated with modern obstetric care.

In the United States, where the medical profession blocked access to obstetric techniques for midwives and advocated hospital deliveries, rates were three times higher. After 1945, a drastic reduction to current low rates in the industrialized world resulted from access to antibiotics, Caesarean-sections and safe blood transfusions.

Participatory planning means working with communities on identifying causes of the problem and feasible changes that communities themselves can bring about. Local people are rich sources of information about the major deterrents to safe motherhood and often know how best to approach solutions.

Using Process Indicators : Maternal mortality data are difficult to use as an indicator of outcomes or impact of an intervention. Because of this, process indicators have become invaluable as a means of assessing trends. Process indicators are monitoring tools that help to track progress in programme implementation. With regard to promoting safe motherhood, for instance, process indicators include monitoring access and use of obstetric services, and the coverage and quality of antenatal, delivery and postnatal care. Such indicators are also useful for assessing the risk of maternal death in regions where data on maternal mortality is limited.

Additional indicators need to be developed to measure other interventions, including government compliance in fulfilling the rights of women — for example, maternity rights in the work place.

The Safe Motherhood Initiative

Before 1987, maternal mortality rates were not estimated for most developing countries. In that year, in Nairobi, the Safe Motherhood Initiative was launched by WHO, UNICEF, UNFPA, the World Bank, The Population Council and the International Planned Parenthood Federation, and brought global attention to the neglected problem of maternal mortality for the first time. As a result, the first estimates of maternal mortality were established in 1990 and the reduction of maternal mortality became one of the key goals of the World Summit for Children.

Since then consensus has grown over the causes of maternal mortality. There is also wide recognition that action to reduce maternal death is essential for bringing significant reduction in infant mortality.

Ten years after the Nairobi Conference, during the Safe Motherhood Consultation (Colombo 1997) experts from around the world discussed model programmes and exchanged lessons learned during the first decade of the Initiative. Many of all major international agencies and governments.

Goals and Objectives

Goals

The World Summit for Children goal of reducing maternal mortality by half by the year 2000 was reiterated by both the 1994 International Conference on Population and Development (ICPD) and the 1995 Fourth World Conference on Women (FWCW). These conferences expanded the goal to include the reduction of maternal mortality rates to three-fourths of the 1990 levels by the year 2015.

Both Conferences included other goals that have important bearing on the reduction of maternal mortality. The FWCW, for instance, called for the elimination of discrimination and violence against girls and women. The ICPD called for strong international commitment to improve women's reproductive health — in particular, by guaranteeing access to reproductive information and services that would enable women and men to make informed choices about child-bearing.

Recently, the Development Assistance Committee of the Organization for Economic Cooperation and Development (OECD) also set the goal of reducing maternal mortality by two-thirds by 2015. This goal is particularly significant since it is set by donors and therefore implies considerable willingness to invest in safe motherhood.

Objectives

Reducing maternal mortality can only be achieved through a combination of interventions that address the immediate, underlying and basic causes of maternal death. (see Fig.5, p.17)

A UNICEF programme in any given country may choose to focus on one or several objectives associated with the reduction of maternal death. It is important for UNICEF action to be integrated into a broad plan of action in favour of safe motherhood, that draws together all stakeholders — including national and local governing authorities, health services, the education system, the media, civil society groups and NGOs, communities, women and men.

The Supporting Goals of the World Summit for Children listed in the sidebar may be used as specific objectives and supplemented with the following :

Rights : Increase understanding of safe motherhood as a right of all women as established in existing international human rights treaties and national constitutions — through their rights to health services, adequate nutrition, education and equal employment with maternity rights, among others.

Reproductive Health : Ensure women's access to basic maternity care, including family planning, in the context of fully integrated reproductive health care services.

Supporting Goals of the World Summit for Children

- *Access by all pregnant women to prenatal care, trained attendants during childbirth, and referral facilities for high-risk pregnancies.*
- *Access by all couples to services and information to prevent pregnancies that are too early, too closely spaced, too late or too many.*
- *Special attention to the health and nutrition of girls and to pregnant and lactating women.*
- *Reduction of iron deficiency anemia in women by one third of 1990 levels.*
- *Reduction in the rate of low birth weight to less than 10 percent.*

Nutrition : Improve nutrition of girls, adolescent girls and women to reduce nutritional deficiencies that contribute to maternal and neonatal mortality and morbidity.

Education : Increase girls' access to education and learning and the access of adolescents to youth-friendly health information and services.

Quality, Accessibility, Coverage Improve the accessibility, quality and coverage and use of prenatal, delivery and postnatal care, including essential obstetric and neonatal care in case of complications.

Collaborating with Communities : Raise awareness and make plans with communities to :

— promote birth preparedness by women and families

— raise awareness of the importance of good care for all births and of the presence of a skilled attendant at every birth

— reduce barriers to care, including cultural attitudes and lack of women's decision-making power

— encourage community support for delayed marriage and childbearing

Training : Promote training and deployment of personnel with midwifery skills, including midwives and community midwives. Empower managers, health staff and users to ensure that women and infants have access to services that meet established criteria for quality.

Operational Strategies

Many national constitutions as well as international human rights treaties provide a strategic framework for advancing the rights of women.

Legislation can be used to highlight injustices to women who face discrimination and diminished access to health and other social services not only on the basis of their gender, but also due to their ethnicity, poverty, language and religion, among others.

Recognizing the need for accelerated action to achieve the WSC goal of reducing maternal and neonatal mortality, UNICEF's focus in the coming years will be on support for preventive and promotional actions. UNICEF's principle area of action addresses the underlying and intermediate factors influencing maternal illness and death (*see* Framework, *Fig.5 page 17*). UNICEF's priorities reflect a key premise that women need to enter pregnancy and childbirth in a healthy and well-nourished state and with access to essential maternal health services that are responsive to their needs.

This chapter covers key principles and tools for developing a broad-based strategy for improving maternal and neonatal health by promoting safe motherhood.

Assessing Maternal Health

Accurate maternal mortality data is often difficult to obtain but information concerning the status of maternal health can be derived from process indicators (*see pages 28 and 39-40*) .

Early work needs to focus on the identification of regions, districts or communities that face particular difficulties due to inadequacies in the use, provision or quality of maternal health services. Often these will be the more remote areas and poor urban settings where the vulnerability of women is compounded by the denial of a whole set of rights — affecting education, access to information, increased work burden and so on. Some of these rights issues may have a

Key Operational Strategies

Assessing the scope of maternal illness and death, identifying populations at risk and using the Triple A Approach to develop, implement and monitor programmes for safe motherhood.

Using a rights-based approach to leverage resources for improving maternal health.

Building broad-based multi-sectoral partnerships for safe-motherhood.

Applying a gender focus to all programme activities

Making strategic use of mass communications to promote safe motherhood

Involving adolescents, women, men, and communities in participatory efforts to build women-friendly societies.

Using process indicators to monitor changes in maternal health.

local cultural origin but others may be externally derived — as when women face double discrimination based on their ethnicity, race, religion, poverty or language as well as their gender.

The "triple A" cycle of Assessing a problem, Analysing its causes and taking Action based on this analysis can be used at all levels of society and across all sectors to create processes for fulfilling the right to safe motherhood.

Safe Motherhood as a Human Right

A rights-based strategy for maternal survival means defining maternal mortality as a "social injustice" in the minds of politicians, health workers, journalists and the wider public. The process should help leverage resources for safe motherhood as well as aid the foundation of woman-friendly societies. Appropriate legislation to defend and assert the rights of girls and women is only one aspect a rights-based approach. The real challenge lies in putting the legislation to work using all available opportunities and communications channels to increase awareness, mobilize resources, change attitudes and generate positive behavioural change.

Many human rights currently acknowledged in national constitutions support women's rights to safe motherhood although they may not be immediately perceived in such terms. *(see box below)* For example, most national constitutions guarantee citizens rights to equality and non-discrimination on grounds such as sex, marital status, race, age and class. Governments of these countries are therefore legally obligated to ensure that all women and girls have equal access to government-supplied services such as education and health care.

International human rights treaties, especially CEDAW and the CRC, provide another effective framework for advancing safe motherhood. The reporting process associated with the two treaties provides important opportunities for directing attention

Maternal Rights Enshrined in National Constitutions

Rights to life, liberty and security of the person mean that governments have to provide access to appropriate health care, and to guarantee that citizens can choose when and how often to bear children.

Rights to equality and non-discrimination on grounds such as sex, marital status, race, age and class mean that governments must ensure that all women and girls have access to services such as education and health care, regardless of age, marital status, race, or socio-economic status.

Rights to health care and the benefits of scientific progress, including to health information and education require governments to provide reproductive and sexual health services and information to women.

Rights to foundation of families and family life mean that governments should provide access to health care and other services women need to establish families and enjoy life within their own families.

International Human Rights Treaties and Agreements

Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) ratified by over 160 countries

Convention on the Rights of the Child (CRC) ratified by 191 countries

International Covenant on Civil and Political Rights

International Covenant on Economic, Social and Cultural Rights

European Convention on Human Rights

American Convention on Human Rights

African Charter on Human and People's Rights.

Team-Building

Team building strategies are often effective for overcoming much of the hesitation women and their families feel about changing traditional childbirth practices.

Childbirth is often associated with deeply held beliefs and the idea of the need for attendance by a health worker may be considered inappropriate and even intrusive.

A health professional who is respectful of local customs and/or working in a team with community health workers can bring emotional as well as medical security.

UNICEF's Role in Reducing Maternal Illness and Death

UNICEF's contribution to the reduction of maternal death rests on detailed knowledge of the country situation, identification of populations in greatest need, promotion of effective policies, and implementation through broad-based alliances while promoting cross-sectoral, participatory and empowering solutions.

The variety of factors influencing maternal health demands a combination of strategies and inter-sectoral approaches. In many countries, UNICEF safe motherhood programmes may include :

— Analysis : for example, analysing the positive and negative influences on maternal health, with regard to the social and cultural experience of women as well as the distribution and functioning of maternal health services.

— Building alliances : for example by bringing together civil society groups, NGOs, the media, academics, government and communities to work collectively for safe motherhood.

— Policy Development : for example, by advocating changes in laws and services that will delay age at marriage and promote adolescent's access to information and services

— Service delivery : for example, by improving distribution systems of iron/ folate tablets and clean birth kits.

— Capacity Building : for example, by training literate community-based health workers in Obstetric First Aid.

— Community Participation : for example, by working with communities on loan funds for transportation of emergency obstetric cases and, where relevant, incorporating this into Bamako Initiative projects.

— Monitoring and Evaluation : for example, using process indicators such as the proportion of professionally attended births to help monitor changes in maternal health.

Coalition for Safe Motherhood

In countries where maternal mortality is high, UNICEF can use its influence to build a coalition for safe motherhood among its partners. Such a coalition can help reduce duplication, and strengthen consensus on priorities and action most effective in reducing maternal illness and death.

In many countries, UNICEF is already helping to strengthen relationships and responsiveness between different levels of the health system. Such work needs to emphasise maternal and child survival — and participatory approaches that will involve women and communities in these activities.

Close collaboration between UNICEF, WHO, UNFPA and the World Bank provides a strong international core of support for safe motherhood. At a local level, these agencies can be a mobilising force for government policy changes and interventions to improve maternal health.

and resources towards safe motherhood. In addition, signatories to CEDAW are obligated to uphold and advance the ICPD commitments which include the goal of reducing maternal mortality by three-quarters by 2015, and the right of women and men to decide if, when, and how often to reproduce.

Gender Framework

The gender framework supports the rights-based strategy and should be used at all stages in analysing, planning, implementing, monitoring and evaluating programmes. The gender framework views women's development in terms of five levels of equality:

Welfare - regarding the material well-being of women, compared with men, e.g. their vulnerability to poverty and its relationship to maternal health.

Access to resources - differences in women's access to productive resources such as land, credit, labour and services compared with men and the connection between these and maternal health.

Awareness - including the extent to which maternal illness and death is perceived as part of what it means to be a woman. The knowledge women and families possess about maternal well-being.

Participation - the extent to which women are involved in decisions concerning their maternal health. Includes their participation within families, in communities, through local authorities and at national level.

Control - the level of equality between men and women in their ability to influence their own destines, and in particular to improve their own health.

Safe Motherhood in the UNICEF Country Programme

UNICEF's experience in multi-sectoral programming is especially valuable in advancing safe motherhood, which demands action across a broad spectrum. Interventions occur in the context of:

- primary health care
- reproductive health care
- early childhood development
- education
- nutrition
- water supply and sanitation
- communications
- increasing economic opportunities for women
- increasing women's participation in the social and political life of their communities and countries.

For example,

— when sources of water and fuel are far away from homes, women's workload increases, as does that of children, particularly girls. Such labor can consume up to one-third of daily energy intake. In an already malnourished woman or girl, this energy loss aggravates poor health, particularly during pregnancy.

—Girls' education is directly correlated with lower maternal and infant mortality, better family health and nutrition, lower birth rates, later age at marriage, increased economic opportunity, greater productivity and higher wages.

—Adolescent girls with little schooling are often twice or three

Gender-Sensitive Programming Enables Adolescent Girls and Women...

— to access education and economic opportunities,

— to learn about their rights

— to control resources and influence how they are used.

— to develop life skills particularly in creative and critical thinking, effective decision-making, conflict resolution, confronting discrimination , among others.

— to determine health and life choices within families and communities based on accurate reproductive health information

— to receive high quality care from well-trained and sensitive providers

Safe Motherhood and Early Childhood Care for Survival, Growth and Development

A natural continuum exists between the care women receive while growing up and during pregnancy, childbirth and in the postnatal period and the care infants need for survival and optimal growth and development. In particular,

— A woman who eats well and receives the necessary care during pregnancy is more likely to have a healthy baby who will develop quickly. Cigarettes, smoke, drugs, alcohol or physical abuse during pregnancy can cause injuries to both the woman and her unborn child. Prolonged exposure of pregnant women to emotional stress can also cause damage to the unborn child. Women who take good care of themselves during pregnancy are better prepared to take care of their infants.

— Professional attendance at birth is important for the survival of infants and for the prevention of birth-related injuries. It can reduce developmental problems in infants that may result from obstetric complications.

— Babies learn rapidly from the moment they are born. Early physical closeness is beneficial for the emotional and physical development of infants, because of the role it plays in supporting a strong emotional bond between mother and child.

—Particularly during the early weeks of a child's life, the support of partners and families for both mother and child helps to create a more secure and loving environment that is beneficial to both.

The love and attention of mothers, fathers and other family members help children to develop, grow and learn. Encouraging closer links between the woman and her partner can be beneficial for both safe motherhood and for the healthy development of children.

UNICEF staff working in areas of safe motherhood and early childhood care for survival growth and development (ECC/SGD) need to work together. Not only is there a strong overlap between the programmes, both depend on inter-sectoral approaches that can become more effective as a result of closer collaboration.

Particular attention needs to be given to the concept of a continuum of care, for mothers and infants. This should be reflected in appropriate government policies, in the context of community development, in families, through health services and in the mass media.

Central to this holistic approach is the need to examine pressures and problems facing women and their newborns primarily from the woman's perspective, and then the way families, communities and health services respond to those issues.

[See page 23, Maternal Health and Infant Survival]

times as likely to have a child before the age of 20 as girls with seven or eight years of schooling).

—Health education at primary and secondary school levels helps to delay the onset of sexual activity and reduce risky sexual behavior, unplanned pregnancies, and HIV/AIDS and other sexually transmitted infections. Primary school health education is particularly important since between 50 and 98 percent of girls and boys never reach secondary school. Some studies have shown that exposure to health education in primary school is more effective.

Each programme sector needs to assess its activities in relation to maternal health. There may also be a need for programmes to be modified or incorporate additional activities. In some cases, programme activities may already be making important contributions towards improvements in maternal health.

In many country offices, the appointment of a focal point for safe motherhood would be useful for drawing together information on these multi-sectoral activities. Some countries may also choose to hold an annual "safe motherhood team meeting", involving programme officers from all sectors in a focussed review of all activities, achievements and constraints related to maternal health. *(see UNICEF's Role in Reducing Maternal Death, page 34)*

UNDAF and Safe Motherhood

The United Nations Development Assistance Framework (UNDAF) draws together all the United Nations agencies and often the World Bank into a common framework from which individual and joint programme activities of the agencies are developed.

UNDAF supported activities related to safe motherhood include:

— **Follow-up to UN global conferences,** especially those on population and women. In Mozambique, for example, an UNDAF group consisting of UNICEF, WHO, UNFPA and GTZ has developed a joint 3-year action plan for Safe Motherhood as part of ICPD follow-up activities.

— **Multi-agency theme groups** such as those set up under UNDAF in Mali. Theme-groups bring together United Nations agencies with the World Bank to address health, education, nutrition, emergencies as well as poverty — all of which have a bearing on maternal health.

— **Common strategic approaches** especially those aimed at raising the status of women by expanding education and health services for women and reducing gender violence.

Coordinated programmatic interventions developed within the context of the UNDAF can generate more focussed and complementary interventions.

Changing Behaviour

At the root of almost every successful intervention for maternal and neonatal survival is a fundamental shift in norms and behaviors. Behavioral change is required on many fronts : from the way policy makers allocate resources to women's issues, to the actions of health providers, the support of communities and families and changes in the health-seeking behaviour of women themselves.

☆ ***INDONESIA has created a " mother-friendly movement" that includes :***

— a campaign to generate demand for safe motherhood among women, families and communities;

— improving access to trained village nurse-midwives and quality maternal health services; and

— improving community and district linkages to enhance referrals and emergency care.

Mass Communication and Safe Motherhood

☆ *More than 400 million people living in INDIA now have access to television. Millions more have access to radio. The mass media is spreading at a remarkable rate, penetrating the poorest and often even quite remote communities. The mass media often strongly influences people's conversations and ideas. Its capacity to generate behavioural change may be limited, but in association with broader schemes to modify behaviour in favour of safe motherhood, it can provide an important additional stimulus to change.*

☆ *In BANGLADESH, strong political support from the Prime Minister led to the establishment of an annual Safe Motherhood Day. Beginning in 1997, the Day is used to focus attention on the social issues behind maternal death. It has attracted important backing from the local mass media as well as becoming a mobilizing focus for government, health workers and many agencies. UNICEF support included development of an information strategy and materials targeting all levels of society with appropriate messages and actions each could perform to aid safe motherhood.*

☆ *In BRAZIL, the mass media provides a powerful vehicle for the discussion of women's health issues through the weekly television programme MULHER (Woman) produced by the TV Globo Network in Rio de Janeiro. The programme deals with women's issues including health in a bold and engaging style that attracts a large audience.*

The mass media can powerfully illustrate the injustices surrounding the death of a woman in childbirth. Popular genres like soap operas or radio novellas may portray the drama surrounding maternal emergencies and the consequences of receiving either poor or good quality maternal care.

Utlilizing the mass media may involve collaboration on an advisory level to influence the story-line or discussion topics of existing programmes or more specifically to encourage women to make at least one pre-natal visit, where more targeted communications and discussion of safe-motherhood can take place.

Behavioural change is needed as much to improve the quality of care as it is to eliminate harmful practices, whether these are traditional (such as female genital mutilation) or "modern" (such as "routine" episiotomy).

In some cases, such changes can come about through training of health workers, but in most cases changing behaviour in favour of maternal survival means changing the "common knowledge and practices" of families, communities and the wider society. Such changes demand interventions at many levels and to suit the social, cultural, or geographical factors that influence people's lives.

Information, Education and Communication (IEC) campaigns can be used to promote awareness of healthy behaviors and danger signs and may take many forms according to what is most appropriate for the target audience.

Strategic use of the media can help raise the public's awareness of social and cultural obstacles and identify ways of overcoming them. It can promote the need for accessible, high-quality health and nutrition services, document successful projects, and help win support for the valuable emotional security that can be provided during childbirth through the presence of the father and/or other family members.

IEC activities are only effective when they are supported by strong interventions to improve services. These need to be backed by participatory programmes that engage communities in promoting positive change. Families are usually highly motivated to take action to reduce maternal and infant death which gives these interventions a high chance of success.

Women's involvement in these activities is important but they are often excluded from community leadership roles. Nevertheless, women can often be reached through grassroots women's organizations, health services, through midwives and traditional birth attendants. Adolescent boys and men also need to be involved in expanding the choices of adolescent girls and women. Men, both in the home and in positions of power, need to be partners in securing women's health and rights.

Careful negotiation is especially important when discussing such harmful traditional practices as female genital mutilation and women giving birth alone. Changing such deeply held yet harmful beliefs and practices requires sensitive and considerate efforts to enlist the support of influential community members. With their backing, the modification and eventual abandonment of harmful practices is more likely to succeed.

Monitoring and Evaluation

Measuring maternal mortality is important not only for what it tells us about women's risk of dying in pregnancy and childbirth, but for what it implies about women's social and economic status. Yet it is difficult and complex to measure maternal mortality. Doing so requires knowledge about the deaths of women of reproductive age, the cause of death and also whether or not the woman was pregnant at the time or death or had recently been so. Many countries do not have adequate vital registration systems, even when they do, maternal deaths are often misclassified and therefore under-reported.

Due to the inaccuracy of many vital registration systems, new methods have been developed to estimate maternal mortality, including household surveys, the Sisterhood Method and the Reproductive Age Survey (RAMOS), however each is costly and time-consuming.

— Household surveys require large sample sizes, are expensive and time-consuming.

— The Sisterhood method uses information provided by siblings (usually sisters) and requires much smaller sample sizes, but gives an idea of the level of maternal mortality roughly ten years earlier and often underestimates the level of maternal mortality.

— The RAMOS method investigates all deaths of women of reproductive age and classifies maternal deaths based on interviews with household members and health care providers and facility record reviews. Although, considered the most effective, RAMOS studies are also costly and complex.

Maternal Death Case Review

A maternal death case review is a qualitative, in-depth investigation of the causes and circumstances surrounding a small number of maternal deaths occurring at selected health facilities.

The review process begins at the health facility but also traces events back to the community. Case reviews help to create awareness of avoidable factors influencing maternal death both in the health service and community and identify improvements that could avert future deaths.

If it is conducted in a participatory and culturally sensitive manner, the investigative process often has the advantage of strengthening links between health facilities and communities.

Detailed guidelines for conducting maternal death reviews are available from WHO.

☆ *In EGYPT, UNICEF and the Ministry of Health and Population recently used EOC process indicators to complete an assessment in six districts of Upper Egypt. The assessment used available records, calculation of indicators, site visits to the facilities as well as in-depth interviews with key health officials and staff at the facilities. Results from the Akhmiem District of Sohag Governorate indicated: a high unmet need for essential obstetric care services; treatment in EOC facilities of only 17 percent of women with serious complications; a low C-Section rate of 0.04 percent; a case fatality rate of 7 percent; poor use of existing resources such as space in facilities and equipment and poor training and supervision.*

Measuring Trends in Maternal Health With Process Indicators

Essential Obstetric Care (EOC)

A process indicator series published in 1997 by UNICEF, WHO and UNFPA focuses specifically on monitoring whether women who develop serious obstetric complications receive the services they need. Indicators include:

— Number of facilities offering EOC : Basic EOC facilities offer intravenous antibiotics, oxytocic drugs, anti convulsants, manual removal of the placenta and assisted vaginal delivery. Comprehensive EOC offer all of the above plus surgery and blood transfusions. Minimum Acceptable Level : For every 500,000 people, 4 Basic EOC, 1 Comprehensive EOC.

— Geographic distribution : Are EOC facilities equally accessible to all?

— Percentage births in EOC facilities : At least 15% of all births in the population should be taking place in EOC facilities.

— Met Need for EOC : 100% of women who develop complications should be treated in EOC facilities

— Percentage of women with complications treated in EOC facilities : At least 15% of women in any population develop obstetric complications.

— Caesarean section rate : Between 5 and 15 per cent of births in the population.

— Case fatality rate : the number of deaths from obstetric complications as a proportion of all women with obstetric complications. Maximum acceptable: 1%

Safe Motherhood

Common indicators used to monitor and evaluate safe motherhood include:

— percentage of births with skilled attendance

— percentage of pregnant women attending antenatal care at least once.

— percentage of women immunized with tetanus toxoid

— percentage of women receiving postnatal care

— time interval from onset of complication (or arrival at facility) to treatment at referral site

— ratio of complicated obstetric admissions

Autopsies and Audits

Several other methods of measuring maternal death are also employed, including:

— Verbal autopsies : an inquiry collected from lay reporters and relatives to establish cause of death (data not collected from health facilities.)

— Confidential enquiries : a routinely conducted system for identifying avoidable factors in maternal deaths, generally conducted at national level involving only health facilities.

— Maternal death audits: a routine system for examining the quality of care issues surrounding maternal deaths in a specific health facility.

Revised Estimates : In 1996, WHO and UNICEF developed a new method to estimate maternal mortality for the year 1990 using a dual strategy. The strategy involved adjustment of existing national maternal mortality ratios to account for underreporting and misclassification, and development of a simple model based on fertility rates and the proportion of births assisted by skilled attendants to predict values for countries with no data. The revised estimates are intended to be used in countries with limited or inadequate mechanisms for monitoring maternal mortality. The estimates cannot be used to predict trends on a year to year basis. A new set of estimates for 1995 is in preparation through a collaborative effort between WHO, UNICEF, UNFPA and governments.

The Value of Process Indicators Given the difficulty of measuring maternal mortality and morbidity, the use of process indicators is essential. The chief advantages of process indicators are that they:

— provide information on what action need can be taken immediately to improve existing programmes;

— are less expensive to use and therefore can be applied more frequently;

— can be used for an initial situation analysis as well as to monitor progress.

Several indicator series have already been developed to monitor the use of essential obstetric care services and broader safe motherhood issues. (*See panel: Monitoring Trends in Maternal Health with Process Indicators.)* There is a need for a wider range of indicators to be established to monitor other rights issues related to maternal health, including the implementation of the CEDAW and CRC.

☆ *High rates of maternal death were revealed in SAO PAULO, a Brazilian city considered to be the richest in Latin America. Maternal mortality data quality was poor both in recording of deaths and causes. This was revealed by epidemiological studies based on mortality data from the vital statistics system and supplementary survey data on each case of maternal death. Concern among the health authorities in Brazil led to establishment of a National Committee on Maternal Mortality and a surveillance system. This has helped to gather information that is used to develop programmes.*

☆ *In TANZANIA, the Adult Morbidity and Mortality Project (AMMP) uses a low cost and participatory monitoring process to provide measures of maternal deaths at village level. Unpaid key informants record deaths through a system that determines cause of death by verbal autopsy. AMMP has found that: most women who died during child-bearing years died of causes not related to childbirth; most maternal deaths in the areas monitored occurred at home; and that the maternal mortality ratios were much higher than official estimates.*

Making Motherhood Safe

Safe motherhood is more than a question of health. It requires changes at many levels of society, and in many systems – health, legal, political, educational and cultural. It requires strong partnerships between government and communities. The following actions are key:

Applying the provisions of human rights instruments. Maternal mortality is a social injustice as well as a health issue. It needs to be understood as an infringement of women's human rights. With this understanding, and through the use of clauses and language in most national constitutions and international treaties (CRC, CEDAW and others), governments have a clear basis for: enacting laws, making policies; and providing services that are more equitable, women-centered and that will end the currents risks to women's lives and health during pregnancy and childbirth.

Encouraging governments to make sustained social investments. Higher investments in health (including pre and postnatal care, EOC and perinatal care, ensuring skilled attendance at delivery, nutrition, family planning/ reproductive health, reducing teenage pregnancy, prevention and care for HIV/AIDS), and education are essential to achieving safe motherhood. Sectoral plans will have to be implemented, with equitable access to basic social services as a condition for reducing the toll among the poorest women, the less educated, the ones living in remote villages. WHO estimates that in low income countries, an investment of $3 per person per year would suffice to prevent almost all maternal and neonatal deaths. Investing in women's survival and good health surely is a sound investment, that brings multiple benefits.

Helping establish women-friendly health services. National and local governments need to establish services that provide high quality reproductive health care and nutrition for infants and women, that will be are responsive to women's needs and respectful of their views.

Helping communities to become women-friendly. Men (as husbands, partners, fathers, brothers and sons), parents, in-laws, families and neighbors all need to become active partners in efforts to support women in making choices and taking actions to improve their lives and health. They must also help break down the most common barriers that prevent women from getting the care they need: distance, cost and socio-cultural factors including education, customs and traditions and women's status and decision-making power. These barriers are often higher for adolescent girls.

Encouraging the formation of women's groups so that women can help each other during pregnancy and following birth. Partners such as national women's organizations, community based groups and health centres, among others, can serve as focal points for the establishment of such groups. Strong links between local women's groups and health centres can help to ensure that services are more effective and better utilised. Promoting these and other initiatives can help to enhance the status and self esteem of women.

Interventions for Safe Motherhood

Interventions outlined in this section of the Guideline are grouped into several areas of action that collectively protect and help to fulfill the right to safe motherhood.

The grouping of interventions and the order of presentation is not intended as an indication of priority. A range of strategies and interventions to promote safe motherhood needs to be based on the analysis of the situation in each country or region.

Human Rights for Safe Motherhood

Improving Nutrition of Girls and Women

Care During Pregnancy and Childbirth

- Prenatal Care
- Delivery Care
- Essential Obstetric Care
- Postnatal Care
- Neonatal Care
- Improving Quality of Care: Women-Friendly Health Services

Maternal and Neonatal Health In Emergency Situations

Building Linkages

- Reproductive Health
- Teenage Pregnancy
- HIV/AIDS in Women and Infants
- Combating Gender Violence and Discrimination

Human Rights for Safe Motherhood

Objectives:

To ensure safe motherhood by fulfilling the rights of girls and women, especially to participation, education, nutrition, health care, a safe environment, to freedom from discrimination and protection from violence and abuse.

Many aspects of women's lives have bearing on their capacity to give birth to healthy children safely. In particular, healthy, well-nourished, better educated women who have control over decisions affecting their welfare are less likely to become victims of maternal illness and death.

Promoting "Safe Motherhood as a Human Right" addresses and prioritizes the factors influencing maternal health. It lays the foundation for an integrated, inter-sectoral approach to maternal health by relating factors underlying safe motherhood to fundamental rights enshrined in international conventions and national constitutions. Special emphasis needs to be given to several rights issues of girls and women that underlie sustainable safe motherhood:

— participation
— education
— nutrition
— health care
— a safe environment
— freedom from discrimination
— protection from violence and abuse.

Needs Assessment

Needs assessment involves analysis of these rights issues in a variety of contexts. This multisectoral analysis should make use of the Gender Framework *(see page 35)*, with particular attention to the following key areas:

Nutrition : What is the nutritional status of girls and women, especially in areas of high maternal mortality? Are there gender differences in access to nutrition among infants, children, adolescents and adults?

☆ ***A charter of patient rights to good quality health care that stresses non-discrimination and particular attention to maternal health care can be particularly useful when it is combined with access to a responsive complaints process. In COLOMBIA, the national family planning association, Profamilia, uses a programmatic approach that is based on human rights. This approach includes a legal service for women to help address their questions about reproductive rights; services and outreach for men to encourage them to take more responsibility for reproductive health; and activities for adolescents that includes a charter of rights of adolescents to reproductive health services.***

Health Services : Do women have access to health care? What is the quality of care? How do these issues relate to areas of high maternal mortality and to age, ethnicity, income and location?

Environment : What is the relationship between access to potable water and maternal health? Are potable water and sanitation services available close to where women live and in health facilities?

Education : How does maternal health relate to girls enrollment and retention rates in primary and secondary education? Do government policies and customary practices support girls education? Are politicians and communities aware of the significance of girls education for development in general and maternal health and infant survival in particular? What are school policies on girls who become pregnant? Is health education relevant to girls' lives?

Cultural Practices : Do any cultural practices inhibit access to safe motherhood — such as female genital mutilation, early marriage, forced marriage and heavy household work burden? What kinds of attitudes exist towards health services and schooling? Is there any gender bias in use of these services?

Media Representation : How are girls and women and the issues affecting them presented in the media? Is gender bias in any such presentations compounded by other discrimination such as poverty, race, ethnicity, location of residence and religion?

Participation : Do women participate in decision-making at the level of the family, community, district and nation? What is the connection between maternal health and women's participation in decision-making particularly in vulnerable populations?

Violence and Abuse : How does the incidence of violence and abuse vary according to ethnicity, location, or other factors? Is there any correlation between these findings and trends in maternal and neonatal health and survival?

Economic Issues: Does any relation exist between women's control, or lack of it, over economic resources and maternal health? Is there any relation between the physical work burden on women and maternal health? Can women afford maternal health care? Do women have equal access to employment? What are the laws and practices governing the treatment of women in the workplace during pregnancy? Are maternity rights respected? What are the consequences for women and families of any failure to respect maternity rights?

Legislation : What international conventions and conditions that have been signed by the government? Is the government taken appropriate measures to implement key international conventions, specifically CEDAW and CRC? Do any laws within the constitution or other policies promote rights that could be applied to safe motherhood? Do any existing laws or policies contradict any of the rights guaranteed by signed international agreements or national constitutions? Are systems in place to monitor compliance with national and international agreements? Are Family Law experts engaged in dialogue with Ministry of Health and academic health institutes?

Social Change : How are trends in migration, economic development and

political conflict affecting women? Is there any increase in poverty, gender violence, the break-up of families that is negatively affecting women , for example by reducing their access to social services? Are these or similar factors affecting maternal and neonatal health?

Strengthening Policies

UNICEF supports the adoption of a human rights perspective in all policy making and programme activities. In cooperation with other UN agencies, UNICEF staff should help decision-makers understand what a "human rights perspective" means for children, women and the development and future of nations. UNICEF staff should support the removal of gender bias in all government policies.

Based on the needs assessment, UNICEF staff should identify key policy areas in health, nutrition education, employment, legislation, among others, that demand special attention with regard to their impact on safe motherhood.

UNICEF may encourage the establishment of a broad group of agencies inside and outside government to lobby for policy change in favour of Safe Motherhood. Areas of particular attention may include:

Increasing awareness among government policy-makers, health providers, the community and the media of the connection between fulfilling the rights of girls and women and safe motherhood. Includes, increasing awareness of legal precedents (in international conventions and national constitutions) that support women's rights to services that enable them to survive pregnancy and childbirth.

Identification of policy weaknesses or inequitable use of resources related to the promotion of safe motherhood.

Reformation of existing laws that restrict women's rights to safe motherhood (e.g., laws that require women seeking health services to obtain the authorization of their husbands, and laws that restrict or inhibit access to health services for unmarried or divorced women and adolescents)

Implementation of laws that protect women's health and well being (e.g., laws that prohibit child marriage, female genital mutilation and criminalize rape and abuse - including such events in a married relationship)

Capacity Building

Based on the needs assessment, multisectoral action should aim to support women's rights and remove gender discrimination. Particular attention may be given to :

Ensuring the participation of women's groups/organizations in policy development and implementation. Particular aims include the removal of discriminatory practices in health, education, employment, water supply, the media, among others. UNICEF can play an important role in ensuring the inclusion of women, particularly as advocates for women's rights and health, including the establishment of women-friendly health services.

Supporting the capacity of government and NGOs to report accurately to the CRC and CEDAW Committees on the rights of girls and women, including their access to information and their access and use of good quality maternal health services. Women's organizations should be involved in the reporting process.

Communication and Community Participation

A central message of all community mobilization and communication initiatives must be that maternal mortality and morbidity are social injustices, that they are avoidable, and that women and families should not accept them as inevitable outcomes of pregnancy. Women need to be encouraged to exercise their rights to life- and health-promoting services. The support of families and communities is critical for such efforts to have an impact on health and legal systems.

UNICEF staff may also :

— provide assistance to women's groups and NGOs that are working to make the government aware of its legal responsibility to reform or put in place laws and policies that protect and promote safe motherhood. Particular emphasis should be given to groups working at community level, to strengthen their position.

— support similar groups urging government to fulfill its obligations to rights enumerated in the CRC, CEDAW and other relevant international treaties and conventions.

— support communications efforts stressing linkages between various rights issue, including promotion of the key rights underlying safe motherhood :

- participation
- education
- nutrition
- health care
- a safe environment
- freedom from discrimination
- protection from violence and abuse.

These efforts need to be combined with positive promotion of opportunities for women, particularly access to maternal and reproductive health services and appropriate support from families and communities for women during pregnancy.

Process Indicators

Process and other indicators related to the fulfillment of women's rights to safe motherhood will be determined by the scope of actions dictated by the needs assessment (i.e. according to whether priority action is needed in education, water supply, health services, legislation etc.) Particular attention should be given to:

— Fulfillment of reporting obligations to the CRC and CEDAW Committees

— Implementation of recommendations of the CEDAW and CRC committees

— The impact of policy or legal reform on the provision of maternal health services, and maternal health, should also be assessed.

Improving Nutrition of Girls and Women

Objectives

To improve nutrition of girls, adolescent girls and women and to reduce nutritional deficiencies that contribute to maternal and neonatal mortality and morbidity.

Evidence is growing that malnutrition, particularly certain vitamin and mineral deficiencies, are linked to the high incidence of maternal illness and death in developing countries.

Anaemia : It has long been known that anaemia, due to inadequate intake of iron and folic acid as well as parasitic infections from malaria and hookworm, could contribute to increased risk of maternal death from haemorrhage. Iron deficiency could also contribute to the increased risk of infection. Anaemia increases the risk of morbidity and mortality associated with any major surgical intervention, including Caesarean section. Anaemia is estimated to affect about 56 per cent of pregnant women in developing countries and is difficult to resolve completely during pregnancy. Severe anaemia increases the risk of dying in childbirth by several orders of magnitude and is thus an extremely urgent condition.

Vitamin A deficiency during pregnancy can increase susceptibility to anaemia, infection and can result in greater severity of infections that occur. Night blindness due to Vitamin A deficiency in the last pregnancy is an important indicator to measure. A prevalence of 5% or more indicates a problem of public health importance. Recent large-scale trials in Nepal suggest that low-dose Vitamin A supplementation during pregnancy is associated with a major reduction in maternal deaths. [WHO notes that where Vitamin A deficiency is endemic among children and maternal diets are low in Vitamin A, health benefits are expected from a daily supplement of 10,000 IU or a weekly supplement of 25,000 IU for pregnant women.

Focused supplementation of particular micronutrients can be an important component of health services for pregnant women. This is particularly the case when communities suffer from extreme poverty and malnutrition.

Over the long-term, it is essential for improvement to occur women's and girl's diets, well before pregnancy, as well as meeting their specific nutritional needs during pregnancy.

For these changes to occur, interventions have to take place at the community level and in households, where women often eat less, less often, and less nutritiously than their children and other family members.

Zinc deficiency is probably widespread among women in developing countries. Zinc is important for the synthesis of hormones and enzymes essential to a number of physiological processes associated with childbirth as well as for immune system development. Zinc deficiency is likely to increase the risk of prolonged labour and of sepsis in pregnancy and childbirth. The area is still under research.

Iodine deficiency is known to increase the risk of stillbirths and spontaneous abortions, and in highly iodine-deficient areas it might contribute to maternal mortality through severe hypo-thyroidism.

Calcium deficiency may contribute to pre-eclampsia and obstetric deaths due to hypertension in developing countries, but this has not been conclusively established.

Folate deficiency around the time of conception induces neural tube malformation and abnormality in the newborn.

Stunting is strongly associated with low birth weight. Short women have a greater risk of developing obstructed labour. An estimated 450 million adult women in developing countries are affected by stunted growth which results from protein/calorie malnutrition in early life.

Needs Assessment

The following areas should be covered to assess the impact of nutritional status of girls and women on maternal health.

Does data exist on the prevalence of moderate and severe anaemia among adolescent girls and women? [Any non-zero prevalence of anaemia should be regarded as a danger sign.]

Are the causes of anaemia and its impact on maternal health understood? Are there special measures for ensuring access to emergency services for women who are moderately anaemic? Is there a functioning system of referral for women with severe anaemia? Are malaria, hookworm and Vitamin A deficiency likely to be important?

Is night blindness reported? Is Vitamin A deficiency among children recognized as a public health problem? Is the linkage between Vitamin A and sepsis in pregnancy understood by policy makers? Is there any interest in Vitamin A supplementation during pregnancy? Is post-partum supplementation of women (one high dose supplementation within 8 weeks of delivery) a policy? What is the coverage? Review experiences on existing dietary programmes for improving Vitamin A deficiency.

Is there any awareness among policy-makers on the possible links between zinc status and maternal death (or such factors as duration of labour)? Is there any interest in zinc supplementation during pregnancy?

What is the percentage of salt iodised at the consumer level? If iodised salt is not readily available, can it be distributed in a targetted way to pre-pregnant and pregnant women? Do iodine supplementation programmes exist? How are they targetted and what is their coverage?

Is there awareness among policy-makers of the links between calcium status and pre-eclampsia? Is there calcium supplementation during pregnancy or any interest in such activity?

Multi-Vitamin and Mineral Supplementation

There are many new scientific results indicating that in many countries, multiple vitamin and mineral supplementation during pregnancy should complement current iron/folate-only supplements. There are as yet no international standards for a multi-vitamin/mineral supplement, but there have been some suggested formulations and there are some trials in the field. It is likely that by 1999 UNICEF will make available a multiple micronutrient supplement for pregnancy and will develop further guidelines for it.

Breastfeeding : In some countries, relatively few women breastfeed within the first hour post-partum, in spite of the fact that initiating breastfeeding at this time will stimulate the contraction of the uterus and probably reduce blood loss.

Are counselling programmes on improved dietary practices in place? Are there affordable nutritious foods (including iron, calcium and Vitamin A rich foods) that can be targetted at pregnant or pre-pregnant women through programmes?

Are health workers trained to assess nutrient deficiencies and anaemia? What is the level/quality of coverage?

How widespread is prompt initiation of breastfeeding? Do Baby-Friendly Hospitals exist, and if so, what is their coverage? What capacity exists outside of BFHI to support prompt initiation of breastfeeding. (in other hospitals, through trained birth attendants or community midwives)? Do Traditional Birth Attendants give support to new mothers for prompt initiation of breastfeeding?

Is short maternal stature well recognized as a risk factor for cephalo-pelvic disproportion? Is reduction of stunting in childhood and adolescence included in the national plan of action for nutrition? Is information available on low birth weight?

Do policies and programmes exist on iron-folate or other micronutrient supplementation of pre-pregnant, pregnant, postpartum adolescent girls and women? What are the obstacles that hinder coverage and compliance? Is there a prenatal services card where receipt of such supplements is clearly noted?

What are the strengths and weaknesses of existing supplementation activities? All stages should be assessed, including design and targeting of programmes, timely ordering and storage of tablets, training of workers, percentage of women reached, whether women actually take the tablets (why and why not), and the effectiveness of monitoring and evaluation systems, among others.

Strengthening Policies and Capacity Building

Increase awareness among policy makers, health workers, community and women's organizations of the connections between the lifetime nutrition of girls and women, various micronutrient deficiencies and maternal and neonatal health and survival. Push for consensus around a programme of action to include supplements for pregnant women of iron/folate, Vitamin A, zinc, calcium and other micronutrients. Draw attention to the incidence of stunting among women and the risk of obstructed labour as well as low birth weight as a consequence of inadequate diet.

Encourage policies that expand the training of health care providers and community midwives in improving maternal nutrition. For instance, by:

— promoting affordable calcium-rich and Vitamin-A rich foods to pre-pregnant and pregnant women.

— promoting adequate weight gain during pregnancy.

— improving recognition of signs of anaemia, hookworm, malaria and the appropriate treatments during pregnancy.

— including breastfeeding counselling and the value of prompt breastfeeding initiation as recommended by the BFHI training programme.

Working with partners promoting Universal Salt Iodization, increase awareness of the connection between iodine deficiency and stillbirths, spontaneous abortions or maternal

deaths due to severe hyper-thyroidism. Encourage policies that provide women with access to iodised salt or affordable iodine supplements. Pre-pregnant women and women in the first trimester of pregnancy are key target groups.

Communication and Community Participation

All interventions to promote behaviour change should be participatory. Interventions may include:

— Preventive supplementation by community-based organizations. Village health workers, midwives or TBAs, women's and youth organizations and other community-based organizations should be involved in the planning, design and implementation of nutritional supplementation initiatives.

— Information and supplements may be distributed through health facilities, to plantation workers, factory workers, in other workplaces, and schools to reach women and adolescents both in and out of school. Pregnant women should be targeted for supplementation in the early stages of pregnancy, when seeking facility-based or midwifery care.

— Improving communication between women and health workers. Training for facility and community-based health workers should include skills on inter-personal communication, counselling and participatory methods, with the goal of improving nutritional status among adolescent girls and women.

— Raising awareness of malnutrition and common nutritional deficiencies, like zinc, that are not well known. Health care providers and community midwives can counsel pre-pregnant and pregnant women on: screening for nutritional deficiencies, where and how to get the supplements they need, and adopting improved dietary practices. New or extra foods recommended to women and their families should be available, affordable and acceptable.

— Undertaking education to reverse beliefs and practices that undermine adequate nutrition for pregnant women. These include food taboos, as well as household constraints on women's access to nutritious foods and sufficient quantities of such foods.

Improvements in maternal nutrition, and the nutrition of girls and women, can also be supported through mass communications efforts in the media, health centres and schools.

Monitoring and Evaluation

Support monitoring of supplementation programmes including :

— proper storage and distribution of supplements

— the percentage of women reached

— the compliance of women in taking supplements

— recording of information by health care providers on prenatal cards.

Other key indicators include:

— The percentage of women of reproductive age screened for haemoglobin levels, with levels below 110 g/l for pregnant women and 120 g/l for non-pregnant women.

— The percentage of live births that weigh less than 2500 g.

Care During Pregnancy and Childbirth
Prenatal Care

Objectives

To improve the accessibility, quality and coverage of prenatal care.

To promote birth preparedness by women, families and communities.

The Components of Prenatal Care

Prenatal care provides:

— **an assessment of maternal and fetal health,** including a health history to identify previous pregnancy-related complications and a physical exam

— **screening and treatment for malaria,** hookworm infection and anemia

— **screening for and management of STDs**, especially syphilis, other reproductive tract infections, urinary tract infections (the most common complication during pregnancy) and voluntary and confidential counseling and treatment (VCCT) for HIV/AIDS

— **monitoring of blood pressure** and generalized swelling

— **micronutrient supplementation** (iron/folate and possibly multiple vitamin supplement and zinc)

— **immunization** against tetanus toxoid

— **screening and treatment** for prenatal hemorrhage, ectopic pregnancy and spontaneous or incomplete abortion

— **counselling** on nutrition, newborn care, breastfeeding, family planning, HIV/AIDS, and the effects of misuse of drugs and abuse of substances like alcohol and tobacco on maternal and infant health -- and the warning or danger signs of pregnancy complications and when and where to get care.

Nearly a quarter of all maternal deaths take place during pregnancy.

While most women in developing countries – 65% — now make at least one prenatal care visit, over one-third of women never receive any prenatal care.

WHO recommends that women make between one and four prenatal visits, the first one during the first trimester.

Needs Assessment

Assessment of prenatal care should cover the following key issues:

— What is the coverage of prenatal care services? What is the proportion of pregnant women who attend at least one prenatal consultation?

— How accessible are services? What are the major barriers women face in accessing care? Are any programs in place to minimize those barriers? What populations are currently underserved by existing services?

— At what level of the health system are prenatal consultations delivered? Which categories of providers can deliver services? What systems are in place to supervise care provided?

— What is the quality of prenatal care? What systems are in place to ensure quality?

— How widespread is the risk approach to screen women for potential complications?

— What is the content of prenatal care consultations? Does care provided meet women's needs?

— Are Clean Birth Kits available in prenatal services? If not, are they available in other venues?

— How affordable are these services? Are any programs in place at national, district or local levels to make services more affordable (insurance schemes, free care for the more vulnerable populations?)

— Do any communication or mobilization efforts exist to promote birth preparedness at the national, district or community levels? What is women's, families, and community awareness of the components of and need for emergency preparedness?

— To what extent is prenatal care integrated into other reproductive health services?

Danger Signs During Pregnancy

— *Bleeding*

— *Paleness and laboured breathing*

— *Severe headaches*

— *Severe vomiting*

— *High fever*

— *Swelling of hands and face*

— *Foul smelling discharge*

— *Severe stomach-aches*

— *Water breaking well before expected delivery*

☆ *In BOLIVIA, the National Insurance for Maternity and Childhood Programme provides free services to pregnant women and children has succeeded in bringing health services closer to the people by addressing financial barriers to care. Starting in 1995, the scheme provides free services to pregnant women and children under five in 311 municipalities. The scheme is co-financed by the central government and municipal councils.*

Coverage for pregnant women includes four prenatal visits, hospital delivery, treatment for complications that arise from pregnancy and delivery (including Caesarean section) and one postnatal consultation. Coverage for children includes treatment of diarrhoeal disease and respiratory infections, two of the chief causes of childhood mortality in Bolivia.

In its first year of implementation, prenatal visits have increased by 80%, deliveries at health facilities by 48% and treatment of emergency cases by 90%. There has been a 20% increase in the number of children receiving treatment for diarrhoea and a 60% jump in the number of pneumonia cases treated.

WHO recommends that pregnant women be treated for hookworm with one dose of oral antihelmintic (e.g. mebendazole or pyrantel) in areas where infections are endemic (20-30% prevalence). Antihelmintics can be safely given to pregnant women AFTER the first trimester. The best approach to reduce hookworm infection in a community is to have a combination of regular treatment, improved sanitation practices and health education.

The Risks of Malaria During Pregnancy

Malaria in pregnancy is a very serious public health concern in endemic countries. Malaria substantially increases the risks of maternal anaemia, prematurity and low-birth weight during a woman's first pregnancy. In subsequent pregnancies the risks of malaria are reduced. HIV infection decreases women's immunity, and increases their risk of experiencing the clinical consequences of malaria.

Low birth weight is the single greatest risk factor for neonatal mortality and is a major contributor to infant mortality. Both placental and maternal anaemia are risk factors for low birth weight. Estimates suggest that malaria is the cause of 40% of the incidence of low birth weight in rural malaria-endemic regions of sub-Saharan Africa. Low birth weight may affect up to 16% of newborns in sub-Saharan Africa — a total of 4 million low birth weight babies out of 25 million annual births. Estimates of the attributable contribution of malaria to infant mortality vary from 3-5% for all pregnant women, to 18% for women with their first pregnancy.

Protection from and treatment of malaria in pregnant women are high priorities. Using insecticide-treated mosquito nets is recommended but should not be the only preventive measure taken. The efficacy of the current recommended treatment followed by chemoprophylaxis has been reduced due to compliance problems among patients and increasing chloroquine resistance. A new approach, shown safe and effective in studies in highly endemic areas, is intermittent treatment with a single-dose anti-malarial drug. Sulfadoxine/ pyrimethamine (one dose in the second trimester and a second dose in the third trimester) This treatment can be provided within currently available prenatal services and should be combined with early diagnosis and prompt treatment of clinical episodes.

- *In malaria endemic areas, all women in their first and second pregnancies should receive intermittent treatment with Sulfadoxine/pyrimethamine at least twice in their pregnancy.*

Strengthening Policies and Capacity Building

UNICEF field staff can advocate for and support actions to:

— Increase the availability of prenatal care and women's access to it by allowing care to be delivered by a wider variety of providers. Prenatal care services should be decentralized to the lowest level of the health system that can provide it adequately.

— Extend prenatal coverage in underserved communities and groups, especially among adolescents and the poor, by supporting interventions that reduce existing barriers, including cost, transport and prevailing attitudes on risks faced by the pregnant women. Community-based and district level facilities could offer care at an affordable fee, and health workers could undertake outreach to encourage all pregnant women to get prenatal care.

— Develop guidelines in cooperation with health workers for a system of quality assurance for prenatal care;

— Ensure that prenatal clinics are equipped to provide or sell Clean Birth Kits, at an affordable price, to women who plan to have a home birth, while also advocating for a skilled attendant to be present at delivery. *(See Clean Birth Kits, page 61)*

Communication and Community Participation

Communication and community participation activities involving men as well as women need to emphasise the importance of prenatal care and birth preparedness for maternal and infant health and survival, focusing on:

— Good health practices and nutrition during pregnancy, birth and the postpartum period;

— The importance of prenatal care to maternal and fetal health for all pregnant women. Awareness must be raised of the fact that all women face risks during pregnancy, even if women are perceived by families and communities, or perceive themselves, as at no or minimal risk;

— Birth preparedness, including obtaining a Clean Birth Kit, arranging for a skilled birth attendant and knowing where and when to seek care. Also includes arranging in advance for transport to reach care and the availability of finance to pay for it;

— Through community-based programmes, encourage families to maintain Home Based Records of pregnancies, births and illnesses. Home Based Records can help to improve the continuity of care women receive by focussing on her reproductive life rather than on a single pregnancy outcome.

— In order to reach adolescents, a youth forum on safe motherhood could be organized in tandem with the national programme. Education on pregnancy care and birth preparedness should also be integrated into school health programmes and programmes for out-of-school adolescents.

It is not appropriate for companies with a commercial interest in products for newborn care, such as breastmilk substitutes, to be involved in prenatal education activities.

Key Elements of Birth Preparedness

Women and their families need to know

- *How to recognise danger signs*
- *Where to go for delivery care and emergency care; and*
- *How to arrange in advance for transport,*

They should also:

— Understand the facts about the biological processes of pregnancy and delivery

— Know the expected date of delivery

— Understand the importance of a skilled birth attendant and materials needed for clean delivery (in homes, health centers or hospitals).

— Realize the need to mobilize resources to pay for services – anticipated (delivery care) and not (essential obstetric care)

— Understand the importance of postnatal care for mother and infant, and where to get it

— Realize the value of exclusive breastfeeding and sources of help in case of any difficulty

— Discuss the return to fertility and the availability of family planning services

Monitoring and Evaluation

Key process indicators for monitoring progress in achieving universal coverage of prenatal care include

— the proportion of deliveries in a defined geographical area during a specific time period
— proportion of women who have received at least one prenatal consultation.

Qualitative indicators are also required to provide information on the content and quality of services.

Sources of Information: District Health Team survey, PAPCHILD and MICS 2000 can help identify underserved areas and underserved populations, specifically adolescents.

Delivery Care

Objectives

To raise awareness of the importance of professional delivery care for all births

To increase the accessibility, quality and use of skilled delivery care

To promote the training and deployment of midwives and community midwives

The Components of Delivery Care

Planning for delivery needs to be part of all prenatal care services. It should involve the lowest level of intervention that is compatible with the health and safety of both mother and child. At a minimum, this includes:

— A clean and comfortable place to give birth. Delivery should be provided at the lowest level of the health system where birth is feasible and safe, and where the woman feels safe and confident — including in the home.

— A skilled attendant. The most appropriate and cost-effective person to provide delivery care is a health professional with midwifery skills who lives close to the woman's community.

— This attendant assists with delivery, safeguards against potential complications, recognizes when things go wrong and takes quick action to ensure that life-saving care is provided immediately including referral to a higher level of care.

A team approach to childbirth including birth attendants both in the informal and formal health system helps to ensure better management of delivery care.

Needs Assessment

Assessment of delivery care involves the following key areas:

— The number of hospitals/health centers/doctors/professional midwives per district;

— The proportion of population within a 5 km radius of a health centre/ hospital;

The Role of the Birth Attendant

Preferably a midwife, nurse doctor or other health professional trained in obstetric care who :

— makes the birth area safe and comfortable; respects the need for company and privacy; supports the woman, her partner and family during labor, birth and the immediate postpartum period;

— observes the woman during labor; helps her cope with pain, allowing light food and drink;

— monitors the fetal condition and condition of infant after birth;

— maintains hygiene (the three cleans — clean hands, clean delivery surface, and cleanliness in handling the umbilical cord)

— if necessary, performs certain interventions, including amniotomy and episiotomy ;

— detects problems early and refers the woman to a higher level of care if necessary.

The Progress

The first stage - labour begins. Knowing when labour begins is important because it provides the basis for identifying prolonged labour. Signs of the start of labour are regular contractions, effacement and/or dilation of the cervix, leakage of amniotic fluid and a bloody discharge. Rupture of membranes is usually a sign that the birth process has begun. The most accurate way to measure the progress of labour is to assess the dilatation of the cervix and to use a partograph. The partograph helps the midwife to assess whether intervention is necessary. Studies have shown that the partograph is highly effective in reducing complications from prolonged labour.

The second stage - expulsion of the baby. This stage usually lasts about an hour but there is no fixed time limit. The beginning is often hard to determine but is marked by the following: the woman feels an urge to bear down because of the pressure of the amniotic sac or the fetus; often the membranes rupture spontaneously; usually there is full dilatation of the cervix, but sometimes the woman feels the urge to push at an earlier stage. Because oxygenation of the infant may gradually decline during this stage, it is important to monitor the fetus regularly.

The third stage - separation of the placenta. The chief risks are uterine atony and retained placenta, which can lead to postpartum hemorrhage (PPH). PPH is responsible for 25 percent of maternal deaths, because of its frequency (8-10 percent of deliveries) and its gravity (as much as 500 ml of blood per minute). "Active" management of this stage of labour includes oxytocics administration, early cord clamping/cutting and controlled cord traction. "Expectant" management

— The number of health professionals with midwifery skills, and their geographic deployment;

— The proportion of births taking place in homes and health facilities respectively;

— The proportion of births being attended by professionals;

— The proportion of complicated births taking place in health centers/ hospitals;

— The percentage of facilities providing basic and comprehensive essential obstetric care (See *Essential Obstetric Care on page 68* for the components of basic and comprehensive EOC);

— The existence of systems to ensure referral and transportation for women with obstetric complications;

— Are partographs used by midwives/ health professionals to record progress of labour?

— Is the care provided at health facilities is baby and woman-friendly?

— Do systems exist to ensure referral and transport of women with obstetric complications from homes and low level health facilities?

— Are formal structures in place to link TBAs to health systems? Are birth attendants supervised?

Over 90,000 women in developing countries die each year from puerperal infections — approximately one third caused by unclean delivery practices.

deployment and supervision, particularly in remote regions.

— Helping to reduce barriers to delivery care for women due to cost, distance and restrictions imposed by husbands or families.

— Ensuring that services are in place to treat delivery complications, including accessible essential obstetric care (EOC) and functioning systems for referral and transport.

Communication and Community Participation

It is essential that women, communities and families recognize the importance of delivery care for all births. UNICEF can assist by :

— Supporting public education and community-based campaigns to raise awareness of the importance of professional delivery care in saving the lives of mothers and infants

— Making information on delivery care available in all health centers, through midwives and other health professionals as well as through community health workers.

— Helping women and their families to become informed about how to obtain a Clean Birth Kit and how it should be used.

— Encouraging families to understand the need to plan ahead, including arrangements for transportation to health facilities if an emergency arises.

— Encouraging communities to abandon harmful traditions, such as women delivering alone.

— Helping women and their families to become informed about their rights within the health system, including their rights to good quality delivery care.

— Making special efforts to involve men and other key decision-makers at household level in supporting positive choices for women.

Strengthening Midwifery Practice

UNICEF places priority on the training and deployment of professional midwives as primary birth attendants and seeks to support, expand and promote their profession. This is especially important where midwives are undervalued in status and pay in comparison with doctors. UNICEF field staff can assist by

— Establishing a national regulatory framework to enable midwives to practice in a variety of settings (institutional and non-institutional, public and private);

— Encouraging policy makers to review and revise regulations governing the scope of practice of each category of birth attendant, and to upgrade curricula accordingly;

— Encouraging the expansion of midwives' role in providing life-saving interventions, such as manual removal of placenta and in prescribing medication;

— Promoting upgrading of professional midwifery education programs and continuing education for practicing midwives or community midwives

— Establishing partnerships with governments, training institutes, national midwives associations, the International Confederation of Midwives (ICM), as well as national

of Labour

includes delaying cord clamping until pulsation ceases (30-60 seconds), which results in placental transfusion to the baby and temporary reduction anemia in neonates. Some maternity hospitals recommend a combination of these interventions: delaying cord clamping by one minute while maintaining the baby at the level of the placenta, administration of oxytocics, and delivery of the placenta by controlled cord traction and maternal effort. The cord should be cut with a sterile instrument to prevent infection.

To prevent PPH, the use of various drugs to intensify uterine contractions, combat atony and reduce blood loss is being explored. WHO is currently coordinating trials to assess the advantages of oxytocic injection versus oral administration of a prostaglandin. The latter could be done at home by low-level health workers.

The placenta should be checked for abnormalities and to make sure it is complete. The mother must be observed closely during the first hour after birth and blood loss should be prevented / treated. Her blood pressure, pulse, temperature and general well-being should be assessed.

After the birth, the newborn should be given immediate attention. The infant's condition is assessed, particularly its breathing, then dried and covered and placed in the mother's arms.

Breastfeeding should be initiated within the first hour of birth — either by the infant spontaneously moving to the breast or with help from the attendant if this does not happen. "Rooming-in" is important emotionally and psychologically for mother and child and increase the mother's ability to produce ample breastmilk.

— What are the existing national policies or regulatory framework governing the scope of practice of each category of birth attendant (doctor, nurse-midwife, midwife, community midwife and TBA)?

— Are any national or district-level programmes in place to train and deploy midwives or community midwives?

— What is the quality/availability of midwifery training and curricula?

— What are the prevailing community attitudes on professional attendants' skills and the care they provide?

Strengthening Policies and Capacity Building

UNICEF staff can help promote the use, quality and availability of delivery care by:

— Working with health ministry officials and health system administrators to improve access to quality delivery care. In particular by obtaining policy support for strengthening and expanding the roles of midwives.

— Supporting the strengthening of professional attendance at birth through training, improvements in curriculum, and more efficient

Promoting the Use of Clean Birth Kits

For the estimated 50 percent of births that still take place in homes with a TBA, family member, or in some cases, the woman alone, Clean Birth Kits can reduce the incidence of infections in mothers and newborns. Based on the principle of the "three cleans" — clean hands, clean delivery surface and clean cord tying and cutting instruments -- these kits provide the supplies needed to conduct a clean delivery which are often unavailable or under-utilized in homes. This single-use birth kit can also be used by professional attendants attending home or institutional deliveries in health centers and district hospitals. Many examples of disposable delivery kits can be found in various countries. UNICEF and UNFPA can provide kits or help programme planners order them from suppliers.

In order to increase the use of the Clean Birth Kits, field staff can :

→ *Encourage birth attendants and families to use the Clean Birth Kits, as part of planning and preparedness for home deliveries*

→ *Promote, as appropriate, the sale of birth kits by antenatal care providers, in markets or through commercial channels.*

→ *Encourage, at the national level, the production of birth kits, provided quality assurance measures are implemented.*

(See Reducing Neonatal Tetanus and Maternal Tetanus, page 81)

☆ *In BURUNDI, the Safe Home Delivery Assistance project encourages families with pregnant women to purchase Clean Birth Kits at a price which is one-third of the market cost. Health centers sell the birth kits only to women who attend prenatal clinics and do not possess risk factors related to age, previous history of difficult labour and so on. Revenues from the sales are used by the health centers to send women with obstetric complications to the referral hospital.*

The project began in the southern province of Makamba in 1995 as a collaborative effort of UNICEF, the Ministry of Health and provincial health authorities. Within 6 months, first prenatal care visits had increased by 50%, and the number of institutional deliveries rose by 10%.

☆ *In Nepal, Save the Children Alliance initiated a social marketing project and sold pre-assembled, single-use clean delivery kits to pregnant women through multiple distribution outlets. A survey on the community/ retailer perception of the kit and promotional materials indicated that people welcomed the kit, used it as intended and that the average rural family could afford to buy it. Retailers also proved willing to stock and sell the kit. Following the success of the project, some of the women involved formed MCH Products, Pvt. Ltd. — a private firm that assembles and distributes the kits to cover a quarter of the yearly 800,000 births in Nepal. The company is also exporting the kits to various other countries.*

A Clean Birth Kit is disposable after use and is compactly packed in a sturdy, plastic bag with a self-sealing enclosure. It usually contains:

— a pictorial brochure

— a plastic sheet, approximately 0.05 mm thick and 1 metre x 1 metre in area

— a bar of soap

— two wooden sticks to clean nails

— a small, plastic or wooden handbrush for scrubbing hands

— two lengths of non-sterile tape, half a metre in length, for tying the umbilical cord

— one pack of five, double-edged razor blades.

In IVORY COAST, midwives have been allowed to perform manual removal of the placenta. This modification in midwives' scope of practice directly improved the ability of midwives to manage post-partum haemorrhage, where emergency action is needed to save the woman's life.

In MOZAMBIQUE a country where there are only 19 obstetrician/ gynaecologists, nurses have been trained to perform Caesarean sections. This training is part of an effort to make essential obstetric care available at the lowest levels of the health system possible, particularly in rural areas where distance is often a significant barrier to women. The outcomes of the Caesarean sections performed by the nurses have been as good as those performed by the obstetricians.

and international associations of obstetricians/gynecologists like FIGO, to expand opportunities for midwifery training and professional development;

— Increasing professionalisation of midwifery practice through the development of strong professional midwives' associations and supporting representatives of midwives' associations to attend conferences on professional practice, new methodologies or service provision

— Facilitating dialogue between professional associations of obstetricians/gynaecologists, general practitioners and midwives.

Improving Deployment and Supervision

Most midwives work in hospitals, and live and practice in urban areas. Field staff can help expand women's access to midwifery care through better deployment and remuneration of midwives and doctors with midwifery skills.

Another goal is creating supportive environments for midwifery care in households, health centers and hospitals. In order to be fully effective, midwives and community midwives working in rural or isolated areas must be fully integrated into a referral system with back-up that leads from home to health center and, if needed for essential obstetric care, a district hospital.

Roles for UNICEF include:

—Supporting programmes to increase the number of midwives or community midwives in underserved areas;

— Advising on systems for midwives to be attached to health centers and accountable to local health authorities;

— Promoting better and on-the-job supervision and training of midwives

— Advocating with health ministry and health system officials for equity in the pay of hospital-based and community-based midwives.

☆ *Since 1994, in INDONESIA, UNICEF has supported government efforts to build a network of young, literate, village-based midwives or bidan di desas, one for each of 55,000 villages. The bidan di desa (BDD) occupies important middle ground between the traditional birth attendant and the professional midwife and works with both in a team. UNICEF and safe motherhood partners helped develop and is supporting a two-week course in life-saving skills for the bidan de desas and is providing management and supervision of midwives after they are deployed to the villages. There is encouraging evidence that the bidan di desas are better accepted by their communities and are able to provide both maternal care and primary health care.*

However, more needs to be done. An assessment of the BDD found that many of the community midwives were having trouble communicating and interacting with villagers. UNICEF is helping to ease these problems with a set of new materials on counselling for the midwives. The materials can be adapted to fit the specific customs, traditions and beliefs of specific communities.

Care Providers

Ensuring that a skilled professional birth attendant (trained midwife, nurse/midwife or doctor) is present at every birth is one of the most effective interventions to reduce maternal and neonatal mortality. A skilled attendant is a doctor, midwife, nurse/midwife or other health care worker who has completed a set course of study of at least 6 months duration, and is registered or legally licensed to practice.

The most appropriate person to care for pregnant women is a health provider with midwifery skills who lives close to the community. Professional midwives are often in short supply however and many other practitioners are involved in providing care to women during pregnancy, labour and childbirth. The "Childbirth Team" may include some or all of the following. Their cooperation is critical for the survival of mothers and infants.

Midwives: Midwives are professional practitioners who have undergone comprehensive training in an accredited program, and are equipped to assist normal births, as well as diagnose and manage complications during childbirth.

Nurse Midwives: In addition to the regular nursing curriculum, nurse midwives receive supplementary training in midwifery skills that enables them to act as skilled birth attendants.

Community Midwives: This intermediate category of birth assistants consists of young, literate women who have finished high school or at least studied up to the age of 15; have received one to two years of practical hands-on training; retain ties to their communities and return to them to practice. Many countries have community midwives, which are referred to under a variety of names: in West Africa they are called "Infirmiere Obstetricienne" or "Accoucheuse Auxiliaire".

Traditional Birth Attendants: TBAs have had one month or less of formal training and deliver babies according to local customs and beliefs. Many TBAs are trained to improve cleanliness at birth and identify and refer complications. The emotional support that TBAs provide to new mothers is important, and they often play a central role in communities. To be effective, TBA training must be supported by good supervision and access to referral systems.

Doctors: Most general practitioners receive no or minimal training in midwifery but in urban settings they are increasingly involved in assisting women in labour, because of the scarcity of midwives. Training courses for such doctors could include basic midwifery skills. Doctors working in district hospitals would benefit from surgical training enabling them to perform C-sections. General Practitioners can also be trained as "Community Obstetricians" providing leadership for the organization of district-based maternal and neonatal care in cooperation with other sectors (education, sanitation etc.)

Obstetricians and Gynecologists: These specialists working in tertiary level hospitals focus on management of the most difficult cases requiring special care.

A skilled attendant must be able to:

— manage normal labor and delivery

— recognize the onset of complications

— perform essential interventions

— start treatment and supervise the referral of mother and infant for management of interventions beyond the caregiver's competence, or unavailable in a particular facility.

☆ *In SUDAN, junior doctors (residents) in District Hospitals perform common operations. In NIGER, where there are only 5 trained specialists in obstetrics and gynaecology, WHO is supporting training of general practitioners in emergency surgery.*

WHO is currently developing essential care practice guides targetted at health workers with minimum pre-service training as well as workers at health posts and health centres. WHO is also preparing midwifery modules on life-saving skills for staff with midwifery skills as well as a manual on obstetric emergencies for doctors and senior midwives at the first referral level.

Improving Midwifery Training

Keeping Curricula Relevant and Current : WHO assists the government in improving midwifery training. UNICEF has a role to play in ensuring that :

— essential skills, as defined by WHO, are taught;

— curricula are updated regularly with new information on midwifery practice,

Such reviews should be undertaken in alliance with midwifery associations, experienced midwifery trainers, practicing midwives, and administrators of existing midwifery programs

Decentralized Training : UNICEF also has a role in encouraging the inclusion of community and home-based care in clinical training for midwives. When professional midwifery training programs or institutes need to be developed, UNICEF may advocate for the establishment of small, decentralized units that build upon existing community facilities, and target candidates in rural communities, including those already engaged in nursing training.

Training for Community Midwives: UNICEF staff can also facilitate training of community midwives to ensure full skills and certification. The long-term goal is for some community midwives to receive complementary training so that after several years of practical experience, they become professional midwives.

Life Saving Skills : Midwifery curricula may or may not include training in life-saving skills (also called expanded midwifery skills). Such training is designed to provide the skills needed to treat women

Useful and Harmful Practices During Delivery

Useful practices that should be encouraged :

— providing care at the most peripheral level that is safe and where woman feels comfortable

— using prophylactic oxytocin in third stage of labor in women with risk of postpartum haemorrhage, or who may be endangered by even a small loss of blood.

Harmful or ineffective practices that should be eliminated :

— routine use of enema and of supine position during labor

— routine manual exploration of uterus after delivery

Practices that should be used with caution until further research is undertaken :

— routine early amniotomy in first stage of labor

— nipple stimulation to increase contractions during third stage of labor

Practices frequently used inappropriately

— bladder catheterization to expel the baby

— liberal or routine use of episiotomy

— oxytocin augmentation during the third stage of labour

(For more information, refer to Care in Normal Birth: A Practical Guide, 1996. World Health Organization, Geneva)

experiencing obstetric emergencies. These skills can be critical to saving women's and infant's lives, particularly where doctors and hospitals are not easily accessible. Such training could be incorporated into midwifery curricula, as well as provided to practicing midwives.

Life-saving skills include :

— prevention and treatment of hemorrhage;

— prevention and management of shock, sepsis and eclampsia;

— resuscitation of newborn; and— evacuation of retained products in cases of spontaneous or incomplete abortion.

The active support and involvement of professional groups, including obstetricians, is critical to the success of this training and to on-going availability of life-saving obstetric care. UNICEF can promote their involvement in curriculum development and training.

Promoting a Team Approach

Training community midwives – a mid-level category – is an important step towards professionalization of attendance at birth. In areas where Traditional Birth Attendants are commonly involved in maternal care, the outcomes of pregnancy and labor can also be improved as long as TBAs are working in collaboration with and under the supervision of well-trained midwives. Findings such as those of the Ghana study below demonstrate that TBA training cannot be used as a stand-alone approach.

The Effectiveness of TBA Training

A recent study in Ghana found no statistical difference in 8 out of 10 indicators showing whether TBA training resulted in better health for mothers. Conducted by Family Health International with the Ghana Ministry of Health, it was the first study to examine the effectiveness of TBA training in dealing with retained placenta, postpartum fever, foul discharge, excessive bleeding and prolonged labour. The methodology included household surveys and interviews with TBAs and their clients.

The FHI study concludes that :

(1) no difference was found between a trained TBA or an untrained TBA in relation to the number of postpartum referrals, the number of women who experienced excess bleeding, and the number of women who were using a contraceptive method at that time

(2) there is weak support (right direction, but not significant) for the impact of TBA training on postpartum sepsis, as reflected by the percentage of women with foul discharge as a symptom of sepsis in the postpartum period

(3) statistically significant support, but poor predictive power in the proportion of women with retained placenta and postpartum fever

(4) the training had a negative effect on the number of women who were in labour for more than 18 hours (perhaps because the trained TBAs had more confidence in their ability to handle the situation).

UNICEF staff can assist by:

— Increasing TBAs' roles in referring women with obstetric complications to essential obstetric care (EOC) services: TBAs should be encouraged to act as partners with midwives, and also to communicate to women the positive aspects of having a professional attendant during deliveries. Professional midwives' associations or practicing midwives are also important partners in determining the best roles for TBAs in specific situations.

— Expanding formal linkages between TBAs and health care systems by undertaking dialogues with TBAs on how they could best participate in such systems and what they need to be effective (e.g., secure transport and radio equipment). When such systems are established, community education should be undertaken to make women and their families aware of TBAs' links to formal health services and their role in facilitating maternal care. Liaison work will be important with health center staff, many of whom have negative attitudes about TBAs and their lack of skills and abilities.

— Incorporating TBAs cultural knowledge and role into health care systems. Women often choose the services of TBAs even when clinic and hospital services are available and accessible. This indicates that the health system must learn from TBAs to

Maternity Waiting Homes

Maternity Waiting Homes are residential facilities where women defined as " high risk " can await their delivery and be transferred to a nearby medical service shortly before delivery, or sooner if complications arise. Some consider these homes to be a key element of a strategy to overcome geographical barriers of access to care for women living in remote areas. The definition of a Maternity Waiting Home varies greatly from country to country. Some were established under government initiatives (Cuba, Mongolia, former Eastern Europe, as well as in Northern Europe, Canada and the US a century ago) and some were established by medical/academic and community groups (Colombia, Indonesia).

Many countries using such homes have now progressed from medical definitions of "high risk pregnancy", towards a broader concept based on a combination of distance, socioeconomic and medical risk factors. While anecdotal evidence from limited-scale projects indicates that Maternity Waiting Homes can have a positive impact on maternal mortality, little quantitative research has been conducted to prove their efficacy. Utilization rates and user satisfaction are insufficiently documented. These homes should not be a stand-alone intervention, but rather serve to link communities with the health system in a continuum of care. Prioritization of interventions is essential for making decisions on how to optimize the use of limited resources.

create more culturally acceptable and respectful ways to care for women. TBAs also provide other essential support services such as help with household chores and looking after children. UNICEF staff can play a role in improving women's access to skilled birth attendants by ensuring that TBAs are welcome to accompany women to health centers, and that TBAs valuable knowledge and skills are incorporated into maternal health provision.

Monitoring and Evaluation

It is important to assess the impact of expanded access to delivery care services and public awareness activities, through quantitative and qualitative data.

Process indicators could include:

— percentage of births assisted by a skilled health attendant (doctor, nurse or midwife)

— percentage of women who received tetanus-toxoid immunisation

— number of practicing midwives per 5,000 of population

— number of Clean Birth Kits distributed or sold in a given area and time

— percentage of births by place of delivery

— coverage of EOC facilities

— unmet need for EOC

— C-section as a percentage of all births

— case fatality rate among women admitted with obstetric complications

— number of new midwives graduated per population.

Focus Groups can also be formed to collect information on birth practices, women's perspectives, among others.

A Maternal Audit is a qualitative in-depth investigation by a specialized team of the causes, factors and circumstances surrounding maternal deaths and "near misses". The review involves discussion with health care providers, family members and community members.

A Verbal Autopsy is an interview method used to record information about deaths that occur at home and help to determine the medical as well as non-medical aspects of a death. It is also useful for health facilities where information concerning maternal or newborn deaths are poorly recorded or suspect.

The Delivery Ward Book is an important criterion for judging the quality of obstetric care. It must be filled in every day. It can also be the basis for calculating perinatal mortality rate at the health facility.

Essential Obstetric Care

Objectives

To ensure all women have access to high quality EOC services that are affordable, effective and appropriate

To reduce or eliminate women's barriers to care, including distance, cost, cultural attitudes and lack of decision-making power

To raise awareness of the importance of professional delivery care for all births

The Components of Essential Obstetric Care

Maternal emergencies are extremely difficult to predict therefore all women need access to Essential Obstetric Care. In guidelines jointly issued in 1997 by WHO, UNICEF and UNFPA, it is recommended that for every 500,000 people there should be four facilities offering Basic EOC and one facility offering Comprehensive EOC.

Basic Emergency Obstetric Care includes :

— antibiotics (injectable)
— oxytocics (injectable)
— anticonvulsants (injectable)
— manual removal of placenta
— removal of retained products
— assisted vaginal delivery

Comprehensive Emergency Obstetric Care which should be available in district and/or regional hospitals serving up to 500,000 people, includes all Basic EOC functions plus:

— Caesarean section
— Blood transfusion

In addition, **Obstetric First Aid (OFA)** consists of a set of emergency measures that can be taken by trained birth attendants at home or in low-level facilities with minimal equipment. Further research is necessary to establish the impact of OFA on maternal and neonatal survival. **In any event, these measures can help save a woman's life if, *at the same time*, action is taken to call for help and arrange transport to a higher level of care.** If OFA is viewed as an alternative to hospitalization in an emergency, this would be counter-productive and dangerous for mothers and infants.

The Four Delays

Delay in recognizing the need for medical care (Related to a lack of information about complications of pregnancy and childbirth and danger signs)

Delay in the decision to seek care (Related to socio-cultural/economic factors)

Delay in identifying and reaching a medical facility that provides needed care (Related to the availability and accessibility of facilities)

Delay in receiving adequate and appropriate treatment (Related to the quality of care)

Obstetric First Aid includes :

— **To reduce or stop bleeding:** uterine massage or bi-manual compression of the uterus before manual removal of the placenta can be done.

— **In case of eclamptic convulsions**: take measures to prevent the woman from hurting herself before anti-convulsants are administered.

— **In case of fever or prolonged rupture of membranes:** administer antibiotics and antipyretics orally as a temporary measure if transport to a higher-level facility exceeds a few hours; IM or IV administration is usually necessary to combat sepsis.

Practitioners are also advised to :

— Keep the woman warm and calm

— Provide oral rehydration if the woman is conscious.

— Encourage emptying of the bladder if still possible.

Ongoing trials with prostaglandins (medications that can be administered orally or rectally) to contract the uterus and injection devices pre-filled with oxytocin (also a uterine contractant) and antibiotics will increase knowledge of the feasibility and effectiveness of Obstetric .First Aid.

Needs Assessment

The needs assessment should determine what essential obstetric care facilities are available, how they are functioning, and what the main barriers are to women's use of available services. Key questions include:

— What facilities are available that provide EOC services? What is their geographic distribution?

— What is the range of EOC services offered at facilities?

— What size population does each EOC facility serve?

— How many women are using EOC services?

— How many potential providers of EOC are there (not only obstetricians/ gynaecologists, but also surgeons, general practitioners, midwives, nurses, physician assistants)?

— What is the quality of the care provided?

— What are the main inputs needed to improve services (trained health staff, supplies and equipment, upgrading of facilities, construction of

Barriers to Care

Economic

Cost is often a major deterrent of utilization of services, even where they exist.

Geography/Time

Delays in accessing or receiving care where mobility is difficult or difficulties in organizing a timely referral and transportation when complications arise.

Cultural

Cultural and traditional beliefs, such as inequalities in access to food, strong preferences for home births, restrictions on the movement of women, among others, can prevent or restrict women's access to quality health care and nutrition.

Political

Situations of civil unrest impact negatively on women's access to health care, with particular negative consequences for minority groups.

UNICEF Priorities in Support of Essential Obstetric Care

UNICEF gives priority to actions supporting :

— communities in their negotiations with district level authorities on strengthening the referral chain to respond to the "four delays"

— providers working at the lowest level of the health system, at health posts and health centers, and so on.

UNICEF can also help to ensure that structural linkages are established between the various levels of care, with the district as the central unit for programming. If demonstration projects are undertaken in the context of operational research, UNICEF can take part in a dialogue between national and district level administrators and the project's implementers, support the organization of an evaluation/consensus-building workshop and help plan replication or scaling-up of the project.

☆ *In NIGERIA, a village transport workers' union now provides transportation to health facilities for women with obstetric emergencies. Drivers were sensitized to women's needs for emergency transport and good transport care. Communities established a revolving "emergency fuel fund" to pay the drivers if women are too poor. Each trip costs women, or the fund, on average U.S.$ 5.89.*

new facilities)?

— What record keeping systems are in place? Is there a mechanism for case review ?

— Are systems in place to ensure adequate supply of medicines (antibiotics, oxytocics, anticonvulsants) to basic and comprehensive EOC facilities, to health posts and private providers for OFA?

— Are regular supervisory visits made to all facilities?

— What are the main barriers limiting women's use of services (cost, travel time to facility, lack of transport, low confidence in health services, lack of knowledge of when to seek treatment)?

— What systems are in place at community and district levels to ensure women's access to care, e.g., referral, transport and communication?

— What is the level of awareness among women, families, communities and birth attendants of OFA procedures ? Are any programs in place to train first level-health workers in OFA?

— What are the common cultural practices or traditions when women experience complications? What impact do they have on care seeking behaviour?

— What is the level of awareness of danger signs among women, families, communities, traditional healers and TBAs and auxiliary health workers? Who makes the decision about when and where women will seek professional care?

— Do programs exist at national or community levels to increase awareness and encourage use of EOC when needed?

— Are pre-packed supplies available in health centres and hospitals in the event of a maternal emergency?

— Do systems exist to ensure referral and transport of women with obstetric complications from homes and low level health facilities, and from both health professionals and TBAs?

— Are formal structures in place to link TBAs to health systems ?

Strengthening Policies

In cooperation with the Ministry of Health, gain the support of other policy-makers for making availability of EOC a priority of maternal health policies and interventions. This includes:

— mapping existing services and planning geographic distribution of facilities for provision of basic and comprehensive EOC services;

— ensuring that all facilities that provide EOC have all needed staff, equipment and supplies available; and

— ensuring that a system exists between the national, district and community levels to monitor them.

Increasing Access to Essential Obstetric Care

It is essential to make EOC more affordable. This could include providing essential obstetric care for free, instituting flat fees that cover pre and postnatal and delivery care, as well as any needed EOC, allowing health facilities to retain a portion of all service fees and using this to improve EOC, and subsidizing the rates for poor women of private insurance.

Financing issues will also need to be addressed to ensure that improvements in EOC services are sustained. Field staff can play a brokering role in securing funding from national and international sources to support specific components of EOC services (e.g., staff training, supplies and equipment, means of transport). Sources include:

- bilateral and multilateral donors, particularly for upgrading facilities, providing supplies and drugs, and staff training;
- national governments, particularly to equip facilities and provide staff;
- district and local governments, particularly to provide supplies and staff, and systems for referral and transport;
- communities, to provide means of transport and communication systems for referrals (e.g. two- way radios) and possibly, to cover the costs of drugs or other supplies;
- families, with regard to appropriate user fees and cost recovery mechanisms
- private sector, within the country or internationally, particularly to upgrade facilities and provide essential equipment and drugs, and support staff training.

Capacity Building at District Level

Actions to provide and improve EOC services occur primarily at the district level. Districts health systems usually cover populations of between 100,000 and 200,000 and generally include a district hospital, district health office and health centers, sub-centers, dispensaries and health posts. Many facilities already have the equipment necessary to provide EOC, but need staff training or specific supplies; other facilities will need to be both equipped and staffed. In many cases, the inputs needed are not extremely costly.

In partnership with district health administrators, UNICEF should work to ensure that EOC services become available to the largest number of women, by:

Mapping : Undertaking mapping at the district level can help to ensure efficient case loads at all available and potentially available facilities (e.g., those that need to be upgraded in order to provide services). The capacity of district hospitals to deliver comprehensive EOC should be assured, and the number of health centers and health posts equipped and staffed sufficiently to provide basic EOC increased. Care in lower-level facilities can be provided by midwives, nurses, and physicians' assistants.. Collaboration with private facilities can also be established.

Community Links to Higher-Level Care : Working with district hospitals, health centers and communities to ensure linkages between them that facilitate women's access to higher levels of care. Each local-level facility needs to be linked to the district hospital administratively and through systems of communication and transportation. Such systems are often best achieved by partnerships between communities and health facilities (health centers and district hospitals). Interventions could include:

— establishing formal administrative linkages between district-level facilities and lower-levels of care (e.g., health centers), as well as to higher-

☆ *In GHANA, a health centre was established by renovating a warehouse, and equipping it with beds, a refrigerator, safe water supply, drugs, and supplies. A community health nurse and a senior nurse midwife were posted to the center, and it began functioning as a maternal/child health clinic with obstetric services. The total cost of the project was US $12,250, 47% of which came from the community.*

levels of care (e.g., regional or teaching hospitals) that include provisions for transport and communication (telephone or two-way radios);

— working with district hospitals to ensure that all women are guaranteed prompt care, whether they are referred by a doctor, midwife or traditional birth (TBA); and

— ensuring that all health facility staff, at both health centers and district hospitals, are trained to recognize when women need higher level care, and provide them with a timely referral.

☆ *In MALI, UNICEF played a central role in developing a perinatal care programme that includes a rapid-response component. This rapid response system has been introduced in six districts. District hospitals and local health centers are linked by a two-way system of radio communication and transportation to first level referral (district) hospitals. A car, equipped with a stretcher, is on standby to transport women from health centers to district hospitals. Under this system, the time required to transmit an urgent message and transport a patient to the hospital is reduced from up to a day to just a few hours. In addition to providing obstetric emergency care, district hospitals also train health center staff in management and standard treatment guidelines. Already, there has been a steady increase in the number of women referred to district level hospitals. The rapid response system is being expanded to an additional 13 districts.*

Upgrading facilities and equipment. Existing facilities (district hospitals and health centers) can often, with minimal inputs, become capable of providing EOC. This is not a primary area of UNICEF support but interventions may be possible through partnerships with bilateral donors, other agencies and communities themselves. These interventions could include:

— renovating an existing operating theatre or equipping a new one

— repairing or purchasing surgical and sterilization equipment.

— converting unused facilities within hospitals, health centers or sites close

☆ **An Urban Model** : *In ANGOLA, the CAOL project (Coordination of Delivery Attendance in Luanda) works to reduce maternal mortality by directing deliveries to the appropriate level of care and improving referral procedures. The CAOL project provides a working model for improving urban services. It features three levels of care :*

— peripheral maternity units for normal deliveries with complications that do not require surgical interventions (basic EOC.) These units can call ambulances to transport emergency cases to:

— a second tier -- hospitals offering surgical capacity or

— a third referral level at a university-affiliated hospital.

Outcomes include an increase in the number of births at the peripheral level with minimal intervention and a decrease in the number of births -- but more specialized care -- at the higher referral levels. Overall, maternal deaths in health facilities have declined.

by into a basic or comprehensive EOC facility.

Improving staff training, supervision and coverage. Actions could include :
— upgrading of existing staff skills and decentralizing them (e.g., training general practitioners to perform Caesarean sections), training for health workers in administering obstetric first aid;
— improving provider sensitivity (e.g., through training in patient care, counseling and interpersonal skills);
— establishing clear lines of supervision and accountability; and
— putting in place a rotation or "on call" system to ensure that staff are available to manage obstetric emergencies 24 hours a day.

Putting in place protocols for management of obstetric emergencies. Protocols have been developed by WHO and are included in the Mother-Baby Package. Interventions include:
— Translation as needed and dissemination of these protocols to all district hospital staff and administrators
— Training for staff in the use of protocols.

Ensuring an adequate supply of blood. A safe and regular supply of blood is essential to EOC service provision. Field staff can raise this issue, and help develop strategies to ensure safe collection, screening, transport and storage of blood.

☆ *In BANGLADESH, the UNICEF supported "Women and Maternal Health Project" has been implemented in 11 districts, with a combined population of 19 million. A mentoring program links 11 district level hospitals with obstetric departments of teaching hospitals, strengthening the referral system for women to higher levels of care; the linkage also established a mechanism for continuing medical education for district hospital staff.*

Since implementation, the number of referrals at health facilities has increased by more than 60% and emergency Cesarean sections have increased by 34%. The government contributed salaries, personnel support and training facilities. In its next phase, the Project will be taken to scale by the government, with donor assistance and will broaden its focus to include the social aspects of maternal mortality, including women's lack of power, decision-making abilities, and violence in the home.

The total annual cost of providing EOC in each of the 11 Project districts is approximately $150,000. With an average district population of 1.7 million, the annual per capita cost of providing EOC services is approximately 8 U.S. cents (U. S.$.08).

☆ *In MALAYSIA, a national safe motherhood initiative has resulted in: upgrading of district hospitals and improved health worker training, establishment of alternate birthing centres in rural and urban areas, ensuring functional referral and emergency transport systems, client-based health education for women, men, families and communities, and promotion of maternal and child nutrition, breastfeeding and newborn care. Ninety-five percent of women now seek prenatal and postnatal care.*

☆ The Save the Mothers Fund

The International Federation of Obstetricians and Gynecologists, in partnership with UNFPA and with the support of the pharmaceutical corporation Pharmacia & Upjohn, Inc., and the World Bank, has launched the Save the Mothers Fund project. Teams of obstetricians/gynecologists from developed countries work with their counterparts in developing countries to launch a demonstration project (s) to provide or improve EOC services (e.g., a Canadian team works with a team in Uganda; U.K. teams with teams in Nepal and Pakistan, Sweden has teamed-up with Ethiopia, Italy with Mozambique and the USA with several countries in Central America). Inter-disciplinary teams include:

—a team coordinator;

—country representative from visiting FIGO society;

—local obstetrician or gynecologist acting as mentor for local hospital;

—Ministry of Health representative and district hospital staff.

FIGO will seek funding to expand the Save the Mothers Fund initiative to other countries. This example illustrates that partnership with associations of ob/gyns, general practice doctors and midwives can be a powerful and strategic force for improving women's access to quality EOC services.

Community Participation

Increasing numbers of communities are investing in strengthening EOC services by:

— providing funds to health centers or district hospitals for the purchase of drugs, maintenance of equipment and infrastructure;

— creating systems for referral and transport, including purchase of radio equipment and purchase or barter to ensure that a motorized vehicle is available to transport women 24 hours a day. Some communities have persuaded members of local transport workers' or taxi drivers' unions to be "on call" to transport women, while others have purchased cars or ambulances;

— establishing financial support/ reimbursement schemes or revolving loan funds to cover the cost of transportation to EOC facilities, provider fees and necessary supplies.

Promoting Behaviour Change

Too often, community and family practices and attitudes prevent or delay women from getting care when an obstetric complication arises. Many women also do not have the status or power within their households to make the decision to seek care independently; in many cases, other family members – e.g., husbands, mothers-in-law – retain this power. Interventions to increase community, family and women's awareness of the importance of EOC care could include communication programmes that:

— Promote participatory research to identify local barriers to care

— Identify negative attitudes and practices

— Identify people who can lead the change process

— Provide information on when, how and where to seek essential obstetric care, how to identify danger signs during pregnancy and delivery

— Teach Obstetric First Aid

When communities take responsibility for financing care, services are more likely to reflect community needs and priorities, specifically those of women.

Monitoring and Evaluation

Process indicators for measuring access to and use of EOC facilities include:

—The number of basic EOC and comprehensive EOC facilities per 500,000 population

—The geographical distribution of EOC facilities

—Total annual births in an area

—The proportion of births in basic and comprehensive EOC facilities/the total number of births in a year.

—The proportion of women estimated to have complications who are treated in EOC facilities/the total number of women with complications (15% of all births)

—The estimated number of C-Sections performed in a district in a 12-month period

—Caesarean-sections as a percentage of all births

—The case fatality rate among women with obstetric complications treated in EOC facilities

—Information on key services provided during the last 3 months (administration of oxytocics, manual removal of placenta, assisted delivery, blood transfusion etc.)

—The availability of drugs and supplies and the number of out-of-stock days.

—The number of EOC facility staff trained

Changes in community attitudes and actions will also be important to measure, using qualitative indicators, along with their effect on service utilization and perceptions of quality.

Postnatal Care

Objectives

To improve accessibility, quality and coverage of postnatal care

To ensure that postnatal care is accepted as a priority intervention backed with adequate resources

The Components of Postnatal Care

Postnatal care provides an opportunity for health workers to ensure that mother and infant are in good health, to detect and manage any problems early; to support breastfeeding and neonatal care; to advise on good nutrition and self care for the new mother; and to provide child health care and family planning information and services.

Ideally, health workers should make the first postnatal visit to the home and the closer to delivery this occurs, the more effective it will be in identifying and treating complications in mother and infant.

Health workers provide:

— an assessment of the physical, nutritional and emotional well-being of mothers and newborns, including bleeding, fever, incontinence and tearing;

— information and counselling on infant care and nutrition, breastfeeding, cord care, infant immunizations, and the need for new mothers to rest and reduce physical labor for several weeks;

— counselling on nutrition, including how to ensure adequate intakes of micronutrients and calories from foods, and, if indicated, provision of iron/folic acid and Vitamin A supplementation;

— family planning information and services;

— counselling on the benefits of stimulation, attention and love for the emotional well-being of the baby;.

Half of all maternal deaths take place within one day of delivery, and 70 per cent of maternal deaths occur within the first week.

Less than 30 per cent of women receive postnatal care.

WHO recommends one postnatal care visit within 24 hours to 3 days of delivery, plus one visit 6 weeks after delivery (in homes or health facilities).

— counselling or possibly completion by the health worker of legal registration of the birth.

Needs Assessment

Assessment of postnatal care should cover the following areas:

— What is the coverage of postnatal care services? What percentage of women are visited by a trained health worker within 48 hours of delivery?

— Where are services delivered? (homes, health centers, district hospitals)

— How accessible are services? What are the major barriers women that face in accessing care?

— What populations are particularly underserved?

— What is the content of postnatal care?

— Does care meet women's and family needs?

— What is the quality of postnatal care? What systems are in place to ensure quality?

— Is postnatal care integrated into reproductive health care services?

— What is the level of awareness of the importance of postnatal care? Do national, district or community level programs exist to increase awareness?

— What communities, families, women and TBAs know about danger signs of postpartum complications?

— Is neonatal tetanus still a problem?

— Are fathers/husbands/partners involved in newborn care?

— What percentage of mothers offer exclusive breastfeeding to their infants at 4 months?

Strengthening Policies and Capacity Building

Action to increase the provision, accessibility and use of postnatal care includes:

— Increasing understanding among policy-makers of the critical importance of postnatal care.

— To allowing postnatal care to be delivered by a wider variety of providers, decentralize care to the lowest level of the health system that can provide it adequately.

— Developing clear guidelines for a system of quality assurance, including training for health workers in recognizing and treating the major causes of maternal death in the postnatal period.

Interventions to reduce access barriers could be especially critical to increasing use of postnatal care services. Field staff can encourage and support mobilization efforts of hospital and health center staff, including midwives, to:

— provide postnatal care to women in their homes;

— ensure that postnatal care is available to underserved communities and groups, especially adolescents and the very poor,

— reduce barriers to care by providing transport, sliding scale fees, and by undertaking outreach to raise awareness of the need for postnatal care.

Communication and Community Participation

Public education at national and community level needs to help women and their families understand:

— The importance of postnatal care to maternal and infant health and the role of the community in ensuring that women get care.

— How to recognize the signs of dangerous complications in mother and infant, and when and where to seek care; the four main danger signs are in women are heavy or continuous bleeding, convulsions, fever, chills and foul discharge, and post-partum depression.

— The importance of breastfeeding and good infant care practices, including nutrition, attention and stimulation.

Monitoring and Evaluation

The key process indicator for monitoring progress in increasing coverage of postnatal care is:

— The percentage of women who have made or received at least one postnatal care visit related to the number of births in the district/region.

Neonatal Care

Objectives

To ensure that all newborns have access to neonatal care including essential newborn care when complications arise.

The Components of Neonatal Care

The same interventions that reduce and prevent maternal deaths can also prevent the death of infants at birth. These interventions must be accompanied by appropriate care for newborns to reduce death and disability due to infections, hypothermia and poor management of asphyxia. **Many newborns will not need access to special care if the birth is properly managed.**

All newborns need basic care: cleanliness at birth, warmth, early and exclusive breastfeeding, eye care, immunization and resuscitation when necessary.

Some newborns need Essential Newborn Care: This care must be provided as soon as possible, and relies on professional attendance at birth and effective referral and transportation to a higher facility for specialized care. Delays in management of complications can result in infant death, handicaps, chronic diseases and disability.

Pre-term and low-birth weight infants need greater attention and more effective recognition and treatment of complications

Needs Assessment

Assessment of neonatal care should cover the following key areas:

— What is the magnitude of perinatal and neonatal mortality?

— What are the main causes? When do most deaths occur?

A Continuum of Care : From Neonatal into Early Childhood

Children's intellectual, emotional, physical and social development all begin before birth and continue to be intense through the early years. Infants learn by taking in information from their environment, through their senses, and their cognitive development depends on stimulation and active learning.

— What proportion of infants have low birth weight (under 2,500g or 5 lbs.)?

— What is the capacity of hospitals and health centers to deliver perinatal and neonatal care?

— What is the quality of these services? How accessible are they? How affordable?

— Are hospitals baby-friendly and woman-friendly? Is family-centred care provided?

— To what extent are perinatal care services linked to existing maternal health services?

— What percentage of health workers have been trained in essential newborn care?

Strengthening Policies

UNICEF has a key role to play in focussing attention on the leading causes of perinatal death. Advocacy for policy change may include:

Causes: Identifying the main causes of perinatal mortality, including low birth weight, and focussing the attention of policy-makers on infant deaths that are preventable. Increasing awareness of the need to include fetal deaths/stillbirths.

Why Do Babies Die?

Of the nearly 8 million infant deaths each year, around two-thirds occur during the neonatal period (the first month of life). About 3.4 million deaths occur in the first week. For every neonatal death another child is born with a physical disability.

Most of these neonatal deaths result from:

- *poor maternal health and nutrition*
- *inadequate care during pregnancy and delivery*
- *lack of essential care for the newborn*
- *infections (neonatal tetanus, sepsis), birth asphyxia, birth injury and problems linked with pre-term birth.*

Many infant deaths are closely linked to women's nutritional status and overall health. Low birth weight in developing countries is caused predominantly by maternal malnutrition, either before conception or during pregnancy.

Every year, 22 million low birth weight babies (who weigh less than 2500 grams) are born. In Asia, twenty percent of children are low birth weight infants.

Children with low birth weight face an increased risk of infection and death during the first few weeks of life, and when they do survive beyond this period, they have a greater risk of morbidity and may have poorer neurological development (poor vision, decreased educational attainment, and more cerebral palsy, deafness and autism). There is also increasing evidence that low birth weight is associated with an increased prevalence of diseases such as diabetes, hypertension, heart diseases and stroke in adult life.

Malaria during pregnancy is believed to account for 5-10 per cent of infant deaths associated with low birth weight.

UNICEF staff could provide technical support for the establishment or **improvement of birth registration and vital registration systems** to record and analyse rates of perinatal mortality.

Policy Review : Working with governments, NGOs, and health authorities to review existing policies on perinatal care.

Midwifery : Ensuring that medical and midwifery schools include in their curricula training in essential obstetric care and essential newborn care (including newborn resuscitation). A new national policy may have to be written, on which UNICEF staff can advise and collaborate. (see Delivery Care, for information on midwifery training.)

HIV/AIDS : Educate and mobilize policy makers, national associations of health and medical professionals, national NGOs, and, as appropriate, the private sector, to support national level action to reduce congenital syphilis and mother-to-child transmission of HIV/AIDS.

Low Birth Weight : Work with governments, research institutions, medical professionals and NGOs to address low birth weight, and develop policies that promote micronutrient and food supplementation as essential for pregnant women.

Promoting Quality Neonatal Care

Clean Delivery : Clean delivery practices include the "three cleans" :
— washing hands with soap and water
— using a clean surface
— using clean razor blades, ties and dressings for the umbilical cord and stump.

In addition, having mothers room-in with their babies when the birth takes place in a hospital or health centre reduces the risk of cross-infection.

Clean delivery practices help lower the incidence of delivery-related infections but it does not affect postpartum infections caused by preexisting reproductive tract infections in pregnant women and will not protect the baby if the mother returns home to unhygienic conditions. (see The Clean Birth Kit, page 61)

Cleanliness issues also include institutional and home practices that protect newborns from environmental infections.

Prevention and management of ophthalmia : Eye prophylaxis involves cleaning the eyes immediately after birth and applying either silver nitrate drops or tetracycline ointment within the first hour of birth. There must be early diagnosis and management of ophthalmia and of blindness which may occur if treatment is delayed.

Initiation of breathing : Birth asyphxia should be recognized promptly and management should follow the basic principles of resuscitation: aspiration of mouth and nostrils, gentle stimulation and if needed, ventilation with positive pressure and cardiac massage if the heart rate does not increase after effective ventilation.

Prevention and management of neonatal hypothermia : On delivery, newly born babies, especially premature and small ones, lose heat rapidly. Simple measures such as a warm room for delivery, immediate drying of the baby and extensive skin-to-skin contact with the mother can

Neonatal tetanus is a leading cause of neonatal mortality in the poorest parts of the world. Of all vaccine-preventable diseases, NNT is second only to measles among causes of child mortality. It causes approximately 400,000 neonatal deaths per year. Maternal tetanus (post partum and postabortum) kills between 15,000 to 30,000 women per year.

In 1989, the World Health Assembly called for elimination of Neonatal Tetanus by 1995. The World Summit for Children adopted Neonatal Tetanus elimination as a goal by 2000. A new strategy targeting high risk countries towards elimination by 2005 is under discussion.

12. Maternal Complications and Perinatal Outcomes

Problem or Complication	*Most Serious Effect on Fetus/Newborn*
Severe anaemia	*Low birth weight, asphyxia, stillbirth*
Haemorrhage	*Asphyxia, stillbirth*
Hypertensive disorders of pregnancy	*Low birth weight, asphyxia, stillbirth*
Puerperal sepsis	*Neonatal sepsis*
Obstructed labour	*Stillbirth, asphyxia, sepsis, birth trauma, disability*
Unclean delivery	*Neonatal tetanus, sepsis*
Infection during pregnancy	*Premature delivery, neonatal eye infection,*
HIV/AIDS, STDs	*Blindness, pneumonia, stillbirth, congenital syphilis, HIV/AIDS*
Hepatitis	*Hepatitis*
Malaria	*Prematurity, intrauterine growth retardation*
Unwanted pregnancy	*Increased risk of mortality, morbidity, child abuse, neglect, abandonment*

prevent loss of body warmth, particularly in resource-poor settings. Birth attendants and families need instruction on how to re-warm babies that became hypothermic and should delay bathing the baby.

Early and exclusive breastfeeding : Breastfeeding should be started within an hour of birth. Feeding should be as frequent as the baby demands, without prelactal feeds or other fluids and food. Knowledge about the importance of breastfeeding should be spread among families and communities as well as health workers and managers. Breastfeeding protects the infant against infection and provides the best nutrition for growth and development. It also reduces the amount of blood loss by stimulating uterine contractions.

Promoting early bonding between both parents and the infant to encourage his/her healthy emotional, physical and intellectual development.

Disease Prevention : Activities in the neonatal phase include:

— BCG immunization in populations at high risk of tuberculosis infection

— OPV at birth in polio-endemic areas

— Universal hepatitis B immunization regardless of maternal immunological status

— Information/counselling on

- care of the newborn, breastfeeding and breast care;
- child immunizations needed later; and
- prevention of malaria (sleeping under bed nets).

— Supporting mother if HIV positive to ensure adequate infant feeding.

Management of newborn illnesses : Major newborn illnesses should be recognized early both at home and at the health centre. If, despite neonatal care, the baby still lacks strength or refuses to be fed, the s/he should be referred to the hospital for diagnosis and treatment. The mother should be admitted to the hospital with the baby, and arrangements made to permit her to continue caring for her infant with continued exclusive breastfeeding, or the use of expressed mother's milk for all oral feedings. If the illness is related to artificial feeding, the mother should be helped to re-lactate with the objective of discharging the infant on exclusive breastfeeding.

Upgrading Neonatal Services

UNICEF can help improve services for newborns by advocating for and supporting training to ensure :

— **The continuous supply of essential equipment and drugs** at all health facilities.

— **Good quality prenatal care** to include detection and treatment of anaemia, hypertensive diseases of pregnancy, STDs (especially HIV/ AIDS, syphilis and gonorrhea), malaria and nutritional deficiencies.

— **Increased use of the partograph** by trained birth attendants (midwives) as a tool to assess the progress of labor and identify when interventions are necessary.

— **Expansion of the number of Baby Friendly Hospitals : promoting** exclusive breastfeeding at health centers. Advocate increased use of the "Kangaroo method" to prevent hypothermia and protect low birth weight babies in resource-poor settings.

— **Training of birth attendants in delivery care** and in both preventive and case management aspects of newborn illnesses as well as recognition of danger signs. Health workers should also be trained to facilitate improvement of family behaviour regarding both newborn care at home and care seeking.

— **Ensure recording of** gestational age, weight, Apgar scores (5-step rapid assessment of physical status of newborn immediately after childbirth), and birth registration of the newborn.

Reducing Maternal and Neonatal Tetanus

Twenty-seven countries — 16 in Sub-Saharan Africa — account for 90 per cent of neonatal tetanus cases. The goal of eliminating neonatal tetanus — defined as reducing the incidence of neonatal tetanus to less than 1 case per 1,000 live births per year in every administrative district worldwide — has been reached in 111 countries out of 160.

Women's Status and Perinatal Survival

Education levels, family income and women's status are important determinants of perinatal outcomes. Outreach to communities and families is essential to demonstrate how cultural and socio-economic factors contribute to perinatal deaths. Among the issues that need to be addressed are: inadequate maternal nutrition including food taboos, heavy workload during pregnancy, many and closely-spaced births, early age at marriage, teen pregnancy, limited or poor education, domestic violence, poverty and lack of control over resources.

The Antenatal Card covers all pregnancies of a woman and is an invaluable tool in improving perinatal health. It facilitates individualized treatment by providing rapid information on the woman's history when she visits her antenatal unit or comes for delivery . It can be used to evaluate pregnancy outcomes, child survival, and maternal complications.

The Delivery Ward Book is a tool for calculating perinatal mortality at the health facility

Perinatal Audits allow for a careful review of what has happened in a health unit over a period of time. They cover all fetal deaths from 20 weeks gestation and all infant deaths up to the end of the first year of life. They help to assess quality of care provided at the facility and to identify avoidable causes of perinatal death. Such audits can determine where interventions could have been made more appropriately and can help guide future care protocols and practices.

Identification of High Risk Zones, preparation of district microplans, and in some cases, community-based monitoring of neonatal tetanus cases have proved effective in achieving elimination of neonatal tetanus in a large number of countries.

Key interventions for the elimination of maternal and neonatal tetanus include :

— **Immunisation** of the approximately 100 million women of child bearing age, pregnant or not, who live in high risk areas with 2 doses of TT vaccine, one month apart, and an additional dose 6 months to 1 year later.

— **Clean delivery** and clean umbilical cord practices through education of community birth attendants (pregnant women, female relatives and traditional birth attendants) and distribution/sale of Clean Birth Kits (see page 61)

— **Long-term control and elimination** of maternal and neonatal tetanus are ensured through routine immunization of school children during the first 3 years of schooling, where enrollment exceeds 50 per cent, complemented by vaccination campaigns for adolescent girls (and boys) and women of child bearing age, and completion of vaccination schedule for pregnant women attending antenatal care. (Two doses of tetanus toxoid provide significant protection for infants born to women vaccinated up to 13 years previously.)

Communication and Community Participation

Communication efforts in support of Birth Preparedness, Safe Delivery and Neonatal Care at national and community level need to emphasize that good maternal health is critical to survival and health of the newborn. It is important to encourage community involvement in planning safe and wanted pregnancies, and good prenatal, delivery and postnatal care.

Information targeted at communities-at risk can include:

— **recognition of newborn illnesses**, where to seek care, and how to get there

— the positive aspects of early and exclusive **breastfeeding**

— **life-saving skills** in prevention and management of neonatal hypothermia, and resuscitation for birth asphyxia. — **early childhood growth and development**, including health, nutrition and protection needs, as well as the basic needs for affection, interaction and stimulation, security and learning through exploration and discovery

National communication efforts could help increase awareness of preventable perinatal mortality, and of the availability of perinatal care services for women and their infants. Such initiatives could also incorporate information on preventing mother to child HIV/AIDS transmission.

Monitoring and Evaluation

Outcome and process indicators for neonatal services include:

— the proportion of live births with low birth weight (under 2,500g/5lbs)

— the proportion of infants exclusively breastfed at 4 months.

— the number of neonatal/perinatal deaths as a proportion of infant deaths.

Improving the Quality of Care : Women-Friendly Health Services

Objectives

To ensure that all women, infants and children have access to women-friendly health services that meet established criteria for quality.

To empower staff, communities and users to ensure improvements in service quality.

The Components of Woman-Friendly Care

High maternal mortality is clearly related to deficient technical **quality** of maternal or reproductive health services and to cultural, time, financial or geographical barriers to care. Major causes of maternal deaths are all related to the poor quality of preventive, prenatal and delivery practices, deficient detection and management of complications or inadequate handling of emergency cases. **Poor quality of care and deficient services are the most common reasons women and families give for not using available services, even if they are accessible.**

On the other hand, there is a growing trend toward the medicalisation of maternal health care through specialised, technology-based models. Such practices as, for example, routine episiotomy, induction of labour and frequent use of Caesarean delivery, can be expensive and increase the rates of complication when used unnecessarily. **Over-medicalisation and over-use of invasive procedures can also create barriers between clients and providers and prevent women from using health services.**

All women, whether their pregnancies are complicated or not, need good quality maternal health care services. **Providing good quality care is the most effective way of ensuring that maternal health services are used – and that women's lives are saved.**

Women-Friendly Health Services: A Definition

— provide health and maternal care for women that complies with the highest possible technical standards, at the lowest level facility that can provide services safely and effectively

— have on hand necessary supplies and equipment

— are available, accessible and affordable: located as close as possible to where women live, open at convenient hours and reasonably priced for both clients and the health care system

— ensure the satisfaction of both users and providers through user involvement in decision-making, and provider responsiveness to cultural and social norms; and

— respect women's and children's rights to information, choice, safety, privacy and dignity.

☆ *In SOUTH AFRICA, the Women's Health Project, in co-operation with the Ministry of Health, conducted a comprehensive review of maternal health services using interviews, questionnaires, focus-group discussions and workshops with women users, staff and administrators. The most common request of women was to be treated with dignity and respect. In addition, health workers noted the absence of reliable communication systems reporting that this undermined the ability of the service to deal adequately with obstetric emergencies*

Women-friendly, quality services are every woman's right.

Health service providers need to be sensitized to the value of listening to clients, and creating a supportive environment in which clients are sufficiently informed, confident and encouraged to voice their opinions. Understanding and respecting women's experiences of health care is essential to maintaining high quality women-friendly health services.

Needs Assessment

Assessment of women-friendliness of health services should cover the following key areas:

— **Quality of Care**: What are national and facility-level guidelines for case management, quality control, quality assurance? Does the existing Health Information System provide data on quality of care? To what extent do personnel comply with standards of care? Are systems in place to regularly update the knowledge and skills of service providers?

— **Supplies and Equipment**: Are systems in place to ensure all facilities receive a regular and adequate supply of drugs and equipment ?

— **Accessibility**: How many facilities provide maternal health care, at what level of the health system? Which coverage do they achieve? What systems of referral, transport and communication are available to link facilities at different levels of the health system? Do they need to be improved?

— **Affordability and Cost :** What is the cost of the different maternal preventive services and care? Are these costs covered by the national budget?Are there any data on ability to pay for those services? What are the most important shortcomings?

— **Availability :** What is the average waiting time in health facilities for prenatal or postnatal consultations or for the treatment of complications? Does this vary according to socio-economic, ethnic or other social/ geographic factors?

— **Satisfaction of Users and Motivation of Providers :** What are women's main needs for maternal health services? Do existing services meet those needs? What are user perceptions of service quality, accessibility and affordability? Are there policies on user satisfaction and user rights? What staff training is provided? Is it focused on communication with users? Are communities involved in management of health services? What mechanisms exist to ensure involvement?

—**Respect for women's and children's rights :** Are services delivered in a caring manner? Are service providers compassionate, respectful and non-judgmental? Are users aware of their rights? Do mechanisms or institutions exist which could help their awareness and empowerment?

Strengthening Policy and Capacity Building

Promotion and support for women-friendly services depends on forming an alliance for change, drawing on governments, non-governmental organizations and international agencies. Establishing women-friendly care is primarily a quality-of-care issue.

Responsibility for Implementing Women-Friendly Health Services

The responsibility for developing and implementing quality assurance mechanisms for achieving women friendly Services lies at different levels of the system, depending on the component to be developed :

The National (and Regional Levels) are responsible for assuring the quality of design, including:

— Development of standards, protocols of care and establishing an enabling environment for improved quality. — Establishment of systems for quality control (assessment), including setting up an accreditation system.

— Coordination between different agencies and institutions for sharing information and experiences on quality improvement

— Promoting and ensuring user rights by sharing information, creating a positive environment, and assessing progress on structural changes.

The District Level is responsible for:

— Improving service delivery (including infrastructure, coverage, organization of services, etc.)

— Developing standards locally or adapting them

— Improving the quality of management (including supplies, procurement, drugs)

— Promoting user rights (including supporting the problem solving process and promoting user involvement in this process by establishing a health or municipal board, or using a specific participatory methodology such as user surveys, self-assessment and community monitoring).

At the Facility Level, both the staff and the community are responsible for:

— Improving quality of care and ensuring user rights by using a participatory problem solving methodology (Triple A approach, Bamako Initiative Monitoring, Quality Improvement);

— Strengthening participation of the community in monitoring of services and audits

— Improving interpersonal and counselling skills of workers and educating users

— Assessing their own performance against standards.

☆ *In PERU, the Ministry of Health, in partnership with UNICEF and USAID, . is implementing a project called "10 Steps for a Safe Delivery." The criteria for certification of a maternal health facility include: a written policy of safe delivery, trained staff, compassionate care, emergency facilities, communication and transportation equipment, a monitoring committee and community support groups. A national facilitation team works with local institutions to implement the steps, and accreditation is based on process indicators.*

☆ *In BOLIVIA, community members have been involved in a project to determine problems, assess needs, and develop potential solutions in the area of birth spacing.*

Community members stated that they did not talk or interact enough as a community, within couples or with service providers. Community members helped design materials, such as puzzles and diagrams, on basic issues related to human reproduction.

Major improvements in access to maternal health services have been recorded following the introduction of the government-backed insurance scheme offering free care. In the first years of implementation, prenatal coverage has increased by 80%, hospital-based deliveries by 48% and care for emergency cases by 90%. *(See page 15)*

UNICEF staff may assist by :

— Advocating and supporting the development/adaptation of national guidelines and protocols of care as referred to in WHO's Mother-Baby package.

— Supporting the adaptation or development of standards for women friendly health services.

— Coordinating with WHO and other partners to ensure training of staff to improve case management.

— Supporting the provision of critical resources (transport, drugs, communication infrastructure).

UNICEF can help in developing national capacity for assuring compliance with standards of care and respect of user rights by:

— Promoting staff self-assessment of standards and user rights.

— Developing systems for monitoring and enforcing standards for public and private providers.

— Developing a certification system for women friendly services that uses a small number of criteria.

—Linking the accreditation/ certification process with the financing of health services. This can be done directly, through the budgeting process, or indirectly, through health insurance reimbursement.

— Promoting a charter of user rights as a way of ensuring quality.

— Training doctors, midwifes and other health care providers in interpersonal counselling skills that will help people make voluntary, informed, and well-considered decisions regarding their own health.

— promoting community involvement in the management of health services.

Communication and Community Participation

UNICEF can assist by raising public awareness of the right of all women and children to quality care. UNICEF staff may also help by :

— Empowering health workers, communities and users to improve quality through participatory problem-solving at district- and facility level,

— Advocating for decentralization and community participation in the management of health services.

— Supporting the development of consumer groups and advocating for a legal context for their work.

— Adapting methodologies and training materials for improving quality to local contexts, and involving other partners in the process.

— Strengthening supervision and follow-up capacities of districts.

— Promoting networking between health providers for bench-marking and sharing best practices.

— Promoting community initiatives for improving access to health services.

Monitoring and Evaluation

Monitoring of quality of care and women friendliness is immersed in the whole process of quality assurance itself, and therefore, does not require a specific monitoring system. Instead it

should rely on existing Health Information Systems (HIS.) Where health sector reform is implemented, the opportunity should be seized to adapt information systems to changing needs, emphasizing process and quality indicators as well as output indicators.

Mechanisms to evaluate and monitor user-satisfaction and respect for the rights of women and children should be developed. This may involve regular examination of facilities and service provisions, and to obtain first-hand feedback on a full range of quality issues from women users.

The definition of women-friendly services (page 85) and the questions raised in the "Needs Assessment" could be used for defining process indicators for assessing quality of care. They include:

— the proportion of women admitted with obstetric complications

— the case-fatality ratio.

☆ ***In MOLDOVA, maternal mortality is four times higher than in Western Europe (40 per 100,000 live births). Health care provided solely by the government, was without any input from families or communities. Women were admitted to the hospital alone and were often isolated from their families until five days after delivery. With assistance from several agencies and the Ministry of Health, a pilot scheme to train trainers in Family Centred Maternity Care was introduced. It focussed on a physician-midwife team approach and included neonatal as well as family-based maternity care — including rooming-in, emotional support for mothers, and family visits, among others. Successful outcomes of the training include a UNICEF-backed scheme to expand Family Centred Maternity Care to many other areas of the country.***

Maternal and Neonatal Care in Emergency Situations

Objectives

To ensure the continuity of maternal and neonatal health services during emergencies

To protect and support women, adolescents and children during emergencies

The Consequences for Women's Health

The primary victims of today's civil strife and armed conflicts are not soldiers, but civilian women and their children with severe consequences for their health and survival. Problems include :

— **Breakdown of the family and community**. Women often become solely responsible for the welfare of their families and children — which imposes both a physical and psychological burden.

— **Disruptions and/or absence in regular delivery of health services**, including maternal care. After the initial phase of an emergency, pregnancy and delivery complications may become a main cause of disease or death among refugee/displaced women.

— **Gender-Violence** : As a result of family breakdown, girls and women are at increased risk of gender-violence, including rape, sexual abuse, involuntary prostitution. Action to protect victims is a high priority, as is the response to their distinct health and psycho-social needs.

— **Lowered nutritional status**, and concurrent risk of disease. This can further diminish the physical and emotional reserves of pregnant or lactating women, putting their health and that of their child at greater risk.

— **Management and prevention of STDs, including HIV/AIDS**. The AIDS epidemic has exacerbated the

It is estimated that in developing country settings similar to those where most emergencies occur, approximately 20 per cent of women are pregnant at any point in time.

Pregnancies, miscarriages and delivery complications are common, and the prevalence of all of these is often increased during these crises.

UNICEF's Role in Emergency Situations

Principles : During emergency situations, UNICEF action is guided by the following principles :

— prevent exposure of children to risks by addressing the root causes of conflicts

— ensure the survival of the most vulnerable children and women including those displaced within their own countries -and their protection against malnutrition and disease during the chaotic early days of acute emergencies

— assure protection against violence, exploitation, abuse rape, and recruitment into armed forces

— support the rehabilitation and recovery of people and communities through developmental actions to restore basic social services

— promote long-lasting solutions through creation and strengthening of capacities at family and community levels and in particular through support for the participation of women in the design and management of such solutions.

Perspectives : UNICEF brings a developmental perspective to its emergency action, which has four main elements: (1) advocacy, (2) assessment, (3) care including essential social services, and (4) protection of women and children from intentional harm. Areas of focus include:

— Advocacy on the rights of children and women in emergency situations, including internally displaced women and children, with special emphasis on female and child-headed households.

— Geographical focus on countries and areas from where the displacement occurs

— Interventions addressing basic needs (health, nutrition, water and education targeted at the most vulnerable.)

— Activities for children with special psycho-social and physical needs related to conflict situations (e.g. child soldiers, landmine victims, unaccompanied minors) and related preventive measures.

Cooperation : In emergency situations, UNICEF works within the humanitarian assistance coordination structure to ensure the clear delineation of responsibilities. Generally, one agency will be responsible for the overall health sector, and will use and support the implementation capacity of the government, the public health system, local and international NGOs.

The Emergency Relief Coordinator of the UN system takes into account resources immediately available, technical expertise, and familiarity with the local situation to determine appropriate action.

UNICEF may not be the designated lead health agency in a humanitarian crisis, but it supports the principal agency in ensuring that maternal and neonatal health issues are properly addressed, and adequate security measures are in place. This can include provision of technical and human resource assistance and logistical support.

The coordinating agency should appoint a reproductive or maternal health care specialist. This specialist coordinates with agencies and establishes a plan of action for a broad reproductive health strategy including actions to ensure safe motherhood and protection of women and children against violence.

A range of international conventions and instruments exist to ensure the human rights of refugees and their access to health services. Among the most relevant are:

The United Nations Charter, Articles 1, 2, 55 and 56 (1947)

The Covenant on Civil and Political Rights, and rights and freedoms therein (1966)

International Covenant on Economic, Social and Cultural Rights, Article 2 (1) (1966)

Convention on the Prevention and Punishment of the Crime of Genocide, Articles I, II, III, IV, V, IV, VII and VIII (1948)

Geneva Conventions, Article 3 (1949)

ICPD Programme of Action (1994) and Beijing Platform for Action (1995)

health risks that young people face. However, management and prevention efforts have only recently been introduced in refugee camps and are far from systematic.

— **Vulnerability of adolescents :** Young people are especially vulnerable in refugee situations and have special needs. To reduce their risks, they need access to accurate health information and services. Their health and psycho-social welfare is also critical for building peace.

Needs Assessment

Emergency situations are characterised by rapid and constant changes in nutritional and health problems, movements of populations, political and social turmoil. It is therefore essential for Needs Assessments to be frequently conducted. Information obtained both from primary as well as secondary sources on the following questions may be useful in completing the initial assessment.

— What is/are the country/countries/ region of origin, gender ratio and age structure of the refugees/displaced population?

— What are the main health problems affecting infants and women? What is their nutritional status?

— What are key cultural, religious or ethnic attitudes or practices that may inform maternal health or delivery of maternal health care?

— What health policies exist to deal with reproductive health issues in the host country within relief agencies?

— What is the capacity of existing services (those on site and within surrounding communities or cities) to deliver maternal health services, in particular essential obstetric care (EOC), to the refugee population?

— Are human resources available within the refugee population?

— Who are the victims of gender violence (their age, sex, etc.)? Are medical services (including referral services) available to address their problems?

Capacity Building

Interventions will be implemented by strengthening the capacity of health care systems within refugee and displaced groups and the host country, by:

— Identifying all trained health personnel in affected populations

— Providing additional training in maternal and reproductive health care for health workers, as needed.

— Recruiting and training additional community health workers, preferably women from refugee and host communities.

— Setting up systems to ensure community participation in the design and delivery of services. .

— Establishing sensitisation programs to raise awareness of and prevent gender-based violence, targeted at both men and women.

— Establishing protocols for service delivery (maternal and neonatal care, family planning, diagnosis and treatment of STDs). Role clarification among doctors, midwives, nurses, community health workers and traditional birth attendants is essential.

First Response : The Acute Emergency Phase

During the acute emergency phase, all efforts will be directed towards establishing a coordinating body and providing immediate medical and nutritional care on the ground.

In situations of forced displacement, where populations may be intensely malnourished because of lack of food and water over prolonged periods, some form of a triage is required, e.g., prioritising the treatment of those who are in immediate danger.

UNICEF should make sure that pregnant women near term are included in the first tier of triage, and that these and lactating mothers receive food as a priority over the male population. Lactating mothers must be given absolute priority for scarce water supplies in the early days.

The Stabilization Phase

During the stabilization phase of the emergency, all safe motherhood interventions taken in the initial phase should be consolidated and strengthened, and the following services organized and integrated.

— Delivery care, including skilled attendance at all deliveries, if possible

— Immunizing women of childbearing age against tetanus.

— Prenatal care

— Postnatal care

— Neo/Perinatal care and support to breast feeding

— Psycho-social counselling for women victims of sexual violence and rape

All efforts should be made to liaise with national and local authorities to ensure good quality care to all crisis affected populations, including local populations in situations of population displacement.

Key Interventions :

Protection Against Violence and Promotion of Safe Motherhood

Victims of emergencies - women and children in particular - require immediate care including shelter, food, health care and clean water. In complex emergencies, they also need legal and physical support to protect them from harm and to ensure their access to humanitarian assistance.

Two main areas of intervention for UNICEF are protecting girls and women against violence and ensuring safe motherhood. These interventions should be organised as soon as possible and, in principle, should be based on the needs and expressed demands of refugees, particularly those of adolescent girls and women, with full respect for their religious and cultural values. The components of these interventions are as follows:

Protection of girls and women against violence:

— advocacy (data collection and dissemination)
— physical protection and security (constructing fences, providing good lighting)
— provision of medical, psychosocial, and legal support services for victims

Calculate the number of Clean Birth Kits needed using the 20% rule — that 20% of women are pregnant at any one time — or the Crude Birth Rate. For example, with a CBR of 3%, 5 to 8 births per month are estimated in a population of 2,000.

of violence including rape and other forms of sexual violence (including trauma treatment, emergency contraception and treatment of STDs) — a system should also be established for reporting incidents of rape and sexual and other forms of violence.

Ensuring Safe Motherhood in a Crisis Situation

Ensuring safe motherhood demands the provision of quality maternal health services, including pregnancy support, delivery care and postpartum care with support to best breastfeeding practices.

— **The provision of Clean Birth Kits** to all pregnant women or to all women of child-bearing age as well as hygiene supplies (including soap, sanitary pads, etc.) WHO distributes the New Emergency Health Kits (of which UNICEF is a co-sponsor). UNFPA has designed Reproductive Health Kits, which include a comprehensive array of reproductive health supplies.

— **Establishment of an obstetric facility** where basic/comprehensive essential obstetric care can be provided. Preferably an existing local facility should be upgraded, but necessary personnel, equipment and supplies must be in place. Services can be provided in a mobile clinic until a local facility can be reinforced. UNICEF staff can also ensure that the standards for establishing facility and supply requirements are met. These standards include:

- one equipped medical facility for every 40,000 people
- one operating theatre with staff capable of performing Caesarean sections, for every 150,000 to 200,000 people

— **Development of a referral system for pregnancy complications**, along with 24 hour transport. On-site health centres, or those in surrounding communities, may need to be upgraded and health personnel assigned to them. UNICEF will help implement a functioning referral system for women experiencing complications. Where a high prevalence of female genital mutilation may add risk of delivery complications, UNICEF will also provide relevant training to health professionals as well as support health promotion programmes.

— **Information and counselling** to girls and women on reproductive health including family planning and birth preparedness.

— **Establishment of protocols** to prevent transmission of STDs, with special attention to the issue of universal precaution against HIV/AIDS.

— **Observance of universal precautions to prevent HIV transmission** including:

- Frequent hand washing, with soap
- Wearing gloves and other protective clothing to prevent infection through contact with blood, wounds, bodily fluids and corpses
- Safe handling and appropriate disposal of waste materials, particularly "sharps" (needles, scalpels, etc.)
- Thorough sterilization or disinfection of medical instruments
- Blood transfusion safety measures

— **Technical assistance** to the lead relief agency to develop a plan to deliver safe motherhood services, and establish situation-specific protocols;

— Contributing to the salary of the reproductive or maternal health care specialist, offering technical assistance or training, if required.

Communication and Community Participation

Community health workers and midwives within the refugee population can be key channels for community mobilisation, for dissemination of information on available services, and for feedback on community needs and concerns. By networking with the community, the relief agencies can find solutions that best meet their needs and are the most effective.

Given that men remain the primary decision-makers, but may not be familiar with the scope of safe motherhood and reproductive health services, it is important that community mobilisation includes them. This is likely to increase the use of services by women as well as foster in men a sense of joint responsibility for the health of their partners and children.

Women and girls can also be positive actors in emergencies as leaders and participants in the protection of the household unit under stress and in the process of rehabilitation at family, community and national levels. In crisis situations women's survival and coping mechanisms often leads them to assume non-traditional responsibilities for their families and communities.

Reconstruction programmes need to recognize the new skills that women have acquired and build on them. Women as mediators focus discussions on critical survival and protection issues. Such efforts not only help to ease the struggles in transition, but also provide the groundwork for increased participation of woman in governance and sustained peace.

Monitoring and Evaluation

The availability and use of reproductive health services should be monitored in each phase of the emergency by the reproductive health programme coordinator, in partnership with advisors from other relief agencies. As part of programme planning, a set of process indicators must also be developed that can monitor service delivery, including quality.

Building Linkages : Safe Motherhood in the Context of Reproductive Health

Objectives

To support the integration of reproductive health care

To promote better contraceptive use to prevent mistimed or unintended pregnancies and unsafe abortions.

To ensure women's access to full range of high quality reproductive health care services including family planning.

The Components of Reproductive Health Care

According to the International Conference on Population and Development (ICPD) (1994), reproductive health is defined as the constellation of methods, techniques and services that contribute to reproductive health and well-being by preventing and treating reproductive health problems. The components of reproductive health care include:

— quality family planning counselling and services;

— safe motherhood (prenatal, delivery and postnatal care, nutrition, treatment of complications of pregnancy, neonatal care and breastfeeding;

— prevention and treatment of infertility, STDs and HIV/AIDS, reproductive tract infections (RTIs), breast and cervical cancers;

— promotion of responsible parenthood;

— adolescent health and development

— prevention of gender violence, including female genital mutilation.

Family planning services are most effective, and most responsive to women's needs, when they are delivered within the context of integrated reproductive health care – a package of women's health services that includes safe motherhood interventions. In turn, as maternal and neonatal survival increase, so does the demand for family planning services.

It is estimated that meeting the existing demand for family planning services would reduce pregnancies in developing countries by 20%.

A similar or even greater reduction in the rate of maternal death and injury is also expected. In addition, access to reliable methods of family planning could reduce under-5 mortality of children related to such pregnancies by 30%.

Needs Assessment

An assessment of reproductive health services should cover the following key areas:

— What is the contraceptive prevalence rate?

— What are the major barriers to women's access to reproductive health services?

— What data exist on the prevalence of STDs and HIV/AIDS in women?

— Are mechanisms in place to ensure that women receive information and counselling on family planning in the postpartum period, as part of delivery care, postnatal care or essential obstetric care?

—What categories of health professionals can provide family planning services? Is their training and supervision adequate?

— Do existing services meet women's expressed needs? What protocols are in place to ensure quality of care?

—Are providers trained in patient-centred care? What mechanisms are in place to ensure compassionate care?

— Are men involved in reproductive health discussions and decisions?

Integrating Reproductive Health Services

Most developing countries have some infrastructure in place to deliver maternal and child health and family planning services. Some also have services for testing and treatment of STDs (although these are often weak and not well coordinated with other services). Thus, integration of reproductive health services does not mean starting from the beginning. Rather, it requires strengthening coordination, linking or diversifying existing services, adding new services such as screening and treatment for cancers, infections and sexually transmitted diseases including HIV/AIDS, and improving overall levels of quality.

UNICEF's Role in Reproductive Health

UNICEF supports a multi-sectoral approach to family planning through the promotion of girls' education, adolescents and women's rights and access to information. It includes the promotion of responsible parenthood and safe motherhood through health and life skills education for adolescent girls and boys.

UNICEF promotes all safe and effective family planning methods. UNICEF does not use programme resources for the purchase of contraceptives and does not provide support for abortion services.

UNICEF's main role in reproductive health is to ensure maternal and neonatal survival and health, and provide support to other components such as improving access to quality care, integrating health services and increasing the participation of young people, families and communities.

At least 350 million couples (120 to 165 million women) who would like to limit or space future pregnancies do not have the means to do so.

One third of all infant deaths occur when the mother is younger than 18 or older than 35, or when the space between her children is less than two years.

Teenagers account for an estimated 25% of the 600,000 maternal deaths each year - many of these could have been avoided if these adolescents had better access to family planning information and counselling.

Each year, women experience 75 million unwanted pregnancies, approximately 20 million of which end in unsafe abortion.

Millions of women suffer the consequences of STDs including HIV/AIDS, reproductive tract infections, infertility and reproductive cancers.

☆ *In ZAMBIA, UNICEF helped the government to develop an integrated approach to reproductive health, based on initial support for a maternal syphilis screening programme. The effort includes strengthening of services, as well as support to peer education activities, training of women community educators, and the inclusion of sexual and reproductive health information in the school curricula. The government, with technical support from UNICEF, has developed an integrated situation analysis of sexual and reproductive health to serve as the basis for developing strategies and designing program interventions.*

Reproductive health care programmes should be a part of primary health care services. Meeting women's needs through provision of efficient, respectful and responsive services should be a priority for all reproductive health care programmes. Policies must reflect this integrated approach.

Policy- makers must also be made aware of the need to amend policies to advance the legal age of marriage, keep girls in school, and to allow pregnant teenagers to stay in school.

Capacity Building

Health and educational systems should make the following service adjustments and innovations to provide integrated care:

— Integration of family planning and STD/HIV/AIDS counseling and treatment into prenatal, postnatal and post-abortion care.

— Revision of training curricula of health providers to understand that family planing programmes are a key strategy in child survival and prevention of maternal mortality.

— Improvements in the quality and availability of one-on-one counselling on reproductive health issues including family planning.

— Reduction to a minimum of the number of tests and examinations required for women to obtain contraceptives.

— Expansion of primary health care services to target high risk groups to prevent the spread of RTIs, STDs and HIV.

— Training of health care providers on the detection, prevention of and counselling on STDs including HIV/ AIDS, especially infections in women. Such interventions can help reduce the prevalence of infertility as well.

— Inclusion of age-appropriate health education in school curricula.

— Development of outreach programs for adolescents and unmarried women to make them aware of available services and encourage their use.

— Breast cancer screening with mammography is costly, but clinical breast exam is a low cost effective alternative.

—Cervical cancer screening with cytology (smears of cells) can save thousands of lives each year and is cost-effective for programmes operating at scale, when strict guidelines for screening are followed and efforts are concentrated on age groups in which most cancers occur.

Screening for cancer implies that adequate follow-up diagnostic and treatment services for identified cases are available, accessible and affordable. Low-cost alternatives to pap smears such as visual examination are being researched and evaluated.

Communication and Community Participation

Support can be given to community mobilization initiatives to raise awareness of the importance of reproductive health care including the use of maternal health services and the benefits of family planning. Communities must be involved in decision making and in taking responsible actions to reduce barriers to care. For adolescents, these barriers may be more acute. Men – who often control their partner's access to family planning and reproductive health care – should be targeted for participation in all community mobilization initiatives.

Information, education and counselling on responsible sexual behaviour must be integral to reproductive health services and targetted to adolescents and especially to men, since women are often powerless to protect themselves from sexual abuse or negotiate safe sexual behaviour.

Monitoring and Evaluation

Qualitative research should seek to assess women's perspectives on the quality of the family planning/ reproductive health services they receive, based on accessibility, acceptability and affordability of services. Do the services meet women's needs for caring service provision, confidentiality, and their particular health needs, e.g., for a certain method of contraception or for STDs or infertility?

Process indicators can be used to measure:

— Total fertility rate

— Contraceptive prevalence rate

— Unmet need for family planning services

— Prevalence of STDs including HIV/ AIDS or reproductive tract infections among pregnant women (15-49 years) attending antenatal clinics.

Reducing Teenage Pregnancy

Objectives

Encourage family and community support for delayed marriage and childbearing.

Increase teenagers' access to youth-friendly health information and services.

The Risks of Teenage Pregnancy

Pregnancy and child-bearing during adolescence carry alarming risks. Girls age 15 to 19 give birth to 15 million babies a year, and more girls in this age group die from pregnancy-related causes than from any other cause. Most teenage mothers are married when they become pregnant and give birth.

— Teenage girls are twice as likely to die from childbirth as women in their twenties; those under 15 are at five times the risk.

— Teenage pregnancy also exposes children to increased health risks. Infants born to women younger than 20 are 1½ times more likely to die before their first birthday than children born to mothers aged 20 to 29.

— Five million teenagers, most likely unmarried, seek abortions each year, many of which occur in unsafe conditions and add to the incidences of maternal mortality and morbidity.

— Physical immaturity places adolescent mothers at risk for both mortality and morbidity. Young mothers are at increased risk of obstructed and prolonged labor, fistulae and pre-eclamptic toxemia.

— Also, many young women have poor nutritional status and suffer from anaemia, further complicating pregnancy.

Societal pressures that equate early marriage and fertility with female worth compound the physiological risks to which adolescent mothers are exposed. Girls and young women often lack access to formal education and opportunities that would enhance

Young Mothers and Infant and Child Mortality

Children born to adolescents are more likely to die during their first five years of life than those born to women age 20 to 29. A recent study in 20 countries found that the risk of death by age five was 28 per cent higher for children of adolescents

The Impact of Education

Women who have some secondary schooling are less likely to give birth during adolescence. On average, women with seven or more years of education marry four years later and have 2 or 3 fewer children than those with no education

confidence and decision-making skills to delay marriage and fertility, and to refuse unwanted sex.

Fears about and mistrust of youth sexuality and pregnancy in the community can also impede adolescent access to services and accurate information.

Programmes aimed at reducing teenage pregnancy need to be directed at unmarried, soon-to-be married and married teens and their families.

Components of Youth-Friendly Health Services

Youth-Friendly Health Services Are:
— Attractive but not showy
— Accessible both in terms of physical location and hours of operation;
— Affordable;
— Credible (technically sound);
— Confidential; and
— Gender sensitive

They Provide:
— A range of reproductive health services, including information and treatment for STDs and information on contraceptive options.
— Counselling that is compassionate, non-judgmental and interactive.
— Opportunities for youth leadership and participation in the design of services.

They Possess :
— Strong links with other reproductive health services not provided on-site.
— Monitoring and evaluation systems designed to measure progress toward meeting adolescent's needs, and that incorporate youth feedback.

Needs Assessment

It will be important to determine the incidence of teenage pregnancy, community attitudes on early marriage and timing of first birth, and any programmes and services that provide health education and health services to adolescents. Other areas of enquiry are:

— What is the legal as well as average age at marriage? First birth?

— What is the incidence of teenage pregnancy?

— What are the community and/or regional/national attitudes toward teenage pregnancy and adolescent pregnancy?

— Are there any national policies that require pregnant teenagers to leave school, or forego other educational opportunities, including vocational training?

— What is the availability and coverage of youth-friendly health services?

— Are there national policies that facilitate or restrict access to such services?

— What health programmes exist for young people? What is their coverage? How well do these programmes meet the needs of specific youth groups (rural, urban, street children, those not in school)?

— Do national or community level campaigns exist to raise awareness among adolescents of the health impact of teenage pregnancy, available health services and the facts about sexuality and reproduction?

☆ ***In GHANA, the YMCA in Accra launched the Better Life Options for Girls and Women programme in 1991, which seeks to empower adolescent girls and boys to make informed decisions about their fertility, health, education, employment and civic participation – and to enable girls to delay pregnancy. A family life education curriculum covers a range of health issues, including contraceptive use, negotiating skills and gender relations. In addition, a nurse provides confidential counseling and medical services, and makes referrals to other services when needed.***

☆ *In SOUTH AFRICA, the Youth Information Centre Pilot Project provides reproductive health services and information exclusively for adolescents. Staff at the centers are young, friendly and casually dressed, and the facilities have many posters, music, videos, private counseling rooms and space for young people to socialize.*

☆ *In SWAZILAND, where teenage pregnancies account for over 25% of births , the government has initiated, with UNICEF assistance, a comprehensive program to train health service staff in counseling adolescents on sexual and reproductive health. UNICEF has also introduced Youth Forums that encourage open discussion to help reduce the incidence of teen pregnancies and stem the spread of AIDS.*

Strengthening Policies

UNICEF staff can promote and support the creation or expansion of youth-friendly health policies to ensure:

— adolescents' rights to health education including strong school-based health programmes;

— access to health information and services in line with the principles of the CRC;

— removal of all penalties on pregnant teenagers, including dismissal from school, or ineligibility for vocational training or employment opportunities;

— policy frameworks aimed at eradicating discrimination against girls and promoting delayed marriage and child-bearing.

— protocols and standards for youth-friendly services that include youth input and encourage the integration of adolescent care into training curricula for health workers.

Capacity Building

UNICEF staff should seek opportunities to support, encourage and advise on the development of health education programmes in schools, NGOs, youth centers, workplaces and street outreaches to reach adolescents both in and out of school. Programmes should be designed to equip young people with skills and information necessary to make informed decisions about sexuality and parenthood, and to negotiate abstinence or safer sex. Programmes could also include peer education and aim to reach youth in non-school settings.

Health services for youth may be delivered in youth-only facilities, or as part of existing general health services. **Youth input in the design and evaluation of current or planned services is critical,** for example, by ensuring youth participation on community-based health committees.

Adult facilitators need to be non-judgemental and possess skills in listening and creating a safe space for young people to ask questions and discuss their concerns. NGOs that have provided such services can be useful partners, trainers and technical experts to the health system, other NGOs and the private sector.

Communication and Community Participation

Communication initiatives should be based on participatory research and encourage the involvement of young people, parents and other community members. A variety of media may be used to reach young people including radio, television to strengthen inter-personal communication. Goals of such efforts include:

— inform teenagers about important reproductive health concerns related to teen pregnancy, including the dangers of giving birth while still physically immature;

-- provide youth with the skills to act on the messages;

— raise awareness of health service and education programmes available to teenagers;

— create a supportive environment for young people and reduce the stigma many teenagers feel about their sexuality or seeking reproductive health services; and

More than 40 per cent of girls in the developing world give birth before the age of twenty. This is largely due to social and economic pressures that encourage early marriage.

— stress on equal responsibility among adolescent girls and boys for healthy sexuality and pregnancy.

Monitoring and Evaluation

Key process indicators for monitoring progress in providing life skills education and health services and information to teenagers, and their impact on teen pregnancy rates, could include:

— coverage of life skills education, in and out of school

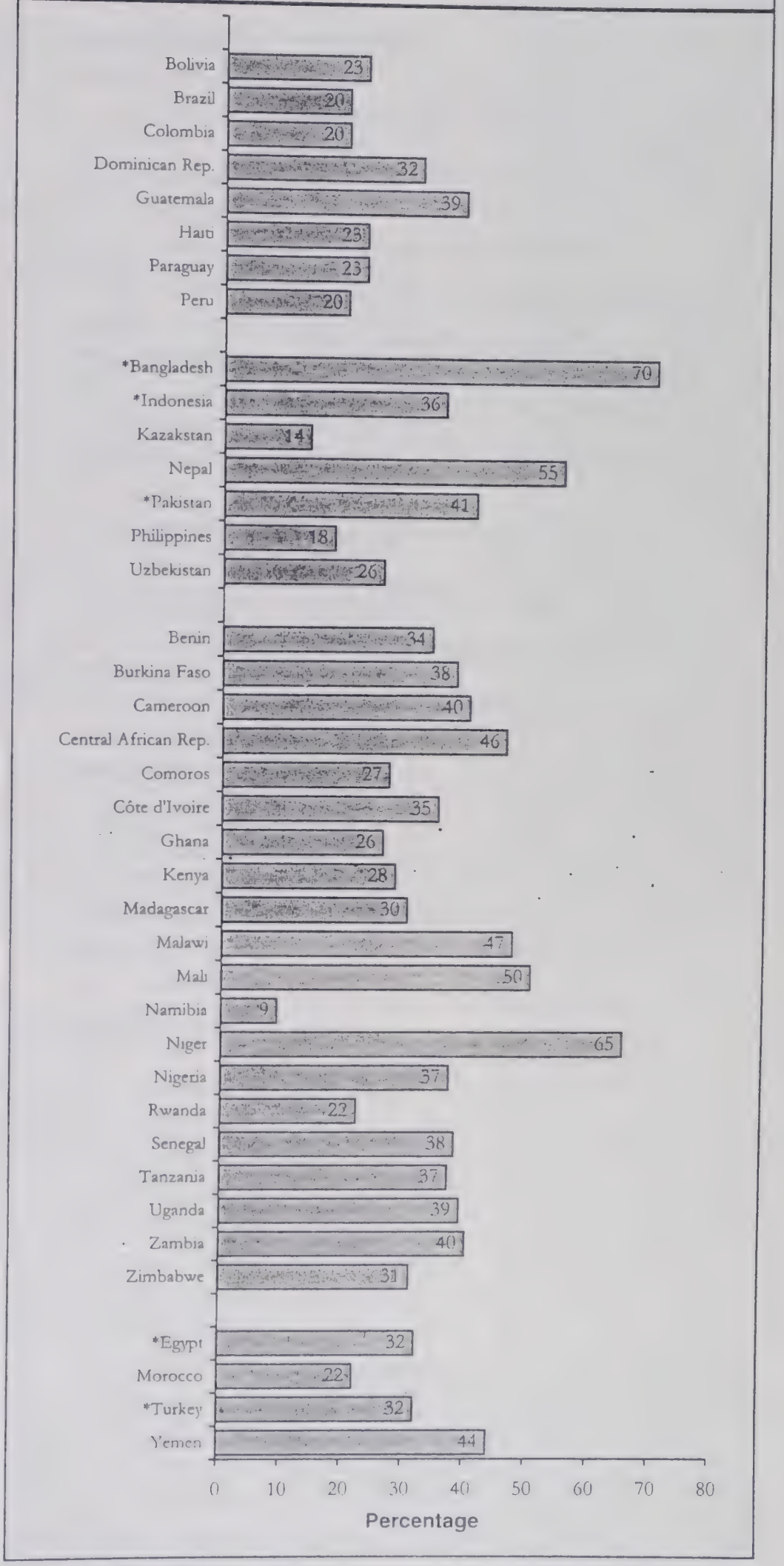
— usage rates for adolescent health services

— teenage pregnancy rates

— trends in teenage pregnancy rates for those who have received life skills education and/or used reproductive health services, or for those who not received either.

Data will also be needed on the quality of services and providers, ways to improve them and the effectiveness of communication and community mobilisation efforts.

13. Percentage of Married Women Aged 25-29 Who Gave Birth Before Age 20



Source: Adapted from The Unchartered Passage: Girls' Development in the Adolescent World, Population Council, 1998.

HIV/AIDS in Women and Children

Objectives

Prevent HIV infection in adolescent girls and women.

Ensure women's access to voluntary counselling, testing and screening for HIV/AIDS, and prevention and treatment of STDs.

Reduce mother-to-child transmission of HIV/AIDS during pregnancy, delivery and infant feeding.

VCCT - Voluntary and Confidential Counselling and Testing (for HIV/AIDS)

MTCT - Mother-To-Child Transmission (of HIV)

The Impact of HIV/AIDS on Women and Children

Every year, of the estimated 10 million women, worldwide, who are infected with HIV/AIDS, two million become pregnant. The majority of these women do not know their HIV status. Pregnancy can aggravate the infection, drain strength and energy, reduce the immune function and make women more susceptible to anaemia and multiple infections.

Every year, HIV/AIDS is transmitted during pregnancy and childbirth to approximately half a million infants in the developing world — 1,400 infants every day. Sixty-seven percent of these infants are born in Africa and 30 percent in East Asia and India.

Not every infant born to an HIV-positive woman contracts the disease. Transmission to the infant occurs in approximately one-third of births by HIV-positive women. Two-thirds of these transmissions occur during late pregnancy and delivery; one-third occur during breastfeeding.

The infant mortality rate (IMR) and child mortality rate (CMR) is expected to double or triple in certain countries in Eastern and Southern Africa (Zimbabwe, Botswana, Zambia, Malawi) because of mother-to-child-transmission of HIV between now and 2010. In these countries, HIV/AIDS will become the leading cause of death of children.

In many countries, prevailing attitudes and norms of gender power, place constraints on the ability of women to demand safer sex, or to protect themselves from unwanted or risky sexual relations. More than 80%

☆ *In ZIMBABWE and UGANDA, UNICEF is working with UNAIDS and the governments to establish and implement pilot projects directed at reducing the risks of MTCT. The project undertakes 5 main interventions:*

— making VCCT for HIV available at the primary health clinic level

— modifying delivery practices to reduce risk of transmission

— providing seropositive women with short-course anti-retroviral treatment

— ensuring access to information and counselling on infant feeding

— strengthening social services to support orphans, affected women and their families

of women are infected by a male sex partner, and women's risk of infection during unprotected sex is as much as 2 to 4 times higher than men's. The physiology of younger women puts them at even greater risk of HIV infection. In many developing countries, particularly in sub-Saharan Africa, infections in adolescent girls outnumber those in adolescent boys by a ratio of 2 to 1.

It is estimated that between 50 and 80 per cent of STDs in women (often asymptomatic) go unrecognized and untreated. Treating STDs can have a significant impact on reducing the spread of HIV/AIDS, especially in women.

Recent studies of HIV positive mothers also show that multivitamin and mineral supplements (but not Vitamin A alone) reduced pre-term births, stillbirths and low birth weight by one third, compared to a placebo.

Needs Assessment

Assessment of HIV/AIDS programmes should cover the following key areas :

— What is the rate of HIV/AIDS infection in the general population?

— What is the rate of infection for women of child-bearing age?

— What is the incidence of other STDs among women?

— What existing services are available for STDs and HIV/AIDS?

— To what extent are STD services integrated into other components of reproductive health care?

— What programme are in place to prevent HIV transmission to girls and women?

— Is there access to voluntary confidential counselling and HIV testing?

— What supplies are available? (AZT, breastmilk substitutes, other alternatives, nutritional supplements)

— Do any programmes exist at national or community levels to raise awareness of MTCT of AIDS, prevention and treatment options?

— What services exist to prevent MTCT in the prenatal, delivery and postnatal periods? What is their coverage? What is the quality of such services?

— What is the rate of exclusive breastfeeding?

— What services are available and where for counselling on breastfeeding and infant feeding?

— Are breastmilk substitutes available? Are they affordable?

For a detailed needs assessment, refer to the Rapid Assessment Protocol developed by UNICEF and UNAIDS and UNICEF's "Vertical Transmission of HIV-Rapid Assessment Guide".

Strengthening Policies

UNICEF staff should urge the integration of HIV/AIDS and other STD prevention and treatment into existing maternal and infant care policies and services — which leads to improved service use by women. The epidemic provides an entry point for improving the quality of maternity care for ALL women. New policies may be required for organization of health systems, service provision, and public information initiatives — although such improvement can often be achieved through existing health services. Priorities include:

Recent Research

A 4-week course of AZT provided to the mother during the last month of pregnancy and during delivery decreases the risk of transmission by about 50% among non-breastfeeding mothers

Mother-to-Child Transmission of HIV can be reduced if delivery is by elective Caesarean section— before the woman has gone into labour and before her membranes rupture. The potential benefits however must be weighed against the possibility of increased post-operative infections and other problems among HIV-infected women.

The risk of illness and death from replacement feeding must be less than the risk of transmission of HIV through breastfeeding or there will be no advantage in choosing this alternative.

Replacement Feeding

This means providing a child who is not receiving any breastmilk with a diet that provides all the nutrients the child needs. During the first six months this should be with a suitable breastmilk substitute - commercial or home prepared formula - with micronutrient supplements. After six months, a suitable breastmilk substitute combined with complementary foods made from appropriately prepared and nutrient-enriched family foods, is given three times a day. If suitable breastmilk substitutes are not available, appropriately prepared family foods should be further enriched and given five times a day.

— Ensuring quality prenatal, postnatal and delivery care for both women and infants.
— Providing access for women and adolescents to voluntary and confidential counseling and testing for HIV/AIDS.
— Integrating services for detection and treatment of STDs and HIV/AIDS into prenatal and postnatal care and other reproductive health services, including family planning.
— Ensuring that all such services are made available to poor and hard to reach women.
— Guaranteeing the safety of blood used for transfusions.

UNICEF staff can play a key role by:
Advocating with government policy-makers for the needed financial and staff resources, including supplies of AZT (if available), replacement feeding including breastmilk substitutes, other anti-retroviral drugs and nutritional supplements.
Advocating with governments for implementation of the International Code of Marketing of Breastmilk Substitutes to prevent commercial pressures for artificial feeding.
Supporting training of health care workers to provide needed services and
Enlisting the support of health service administrators for such services.

Capacity Building

UNICEF staff can offer technical assistance and other support to ensure that health services are made available to women and adolescents, as needed, regardless of their HIV status. Health workers will require training to ensure that services are of good quality, compassionate, gender sensitive and delivered without judgment or stigma. Facilities may need equipment and supplies to carry out screening/testing for STDs and HIV/AIDS and to provide appropriate treatment.

UNICEF should encourage the following specific interventions:

Prenatal Care
—access to voluntary and confidential counselling and HIV testing
—detection and treatment of other STDs, the presence of which increases the risk of transmission
—access to short-course regimens of anti-retroviral treatment (see box on previous page)
—nutrient supplementation, especially vitamin A, and iron/folic acid
—anti-malaria prophylaxis
—information and counselling on full range of infant feeding options

Delivery Care
—ensure cleanliness (health workers should wear protective clothing)
—reduction in routine episiotomy
—avoidance of artificial rupturing of membranes to induce labour
—selective use of Caesarean sections
—cleansing of the birth canal with chlorhexidine (if efficacy demonstrated)
—administering of AZT

Postnatal Care
—counselling on the full range of infant feeding options
—provision of means to carry out replacement feeding as safely as possible in keeping with the UNAIDS policy on HIV and Infant Feeding. In many countries this will mean access to a high-quality breastmilk substitute, as well as clean water and fuel, to minimize the risks of replacement feeding

National Breastfeeding Committees and Baby-Friendly Hospitals are a good focus for action on reducing MTCT of HIV/AIDS. Field staff should assess the capacity of Baby-Friendly Hospitals and hospitals working toward Baby-Friendly status (among others) to undertake training and service delivery related to the reduction of MTCT.

When HIV-Positive Women Give Birth

Whenever possible HIV positive women should be encouraged to give birth in a health institution with a skilled provider. It may be appropriate for the woman to bring gloves to ensure that the baby and the health worker are protected. Sometimes gloves are unavailable in these institutions.

If the birth occurs at home, the woman and the provider should be educated on how to minimize contact with the mother's blood. The health provider should use gloves, cover any open sores, wash her hands immediately before and after contact with blood or body fluids.

Linen soaked with blood or other body fluids needs to be washed in hot water with soap. Solid waste, such as blood-soaked dressings and the placenta should be burned or buried in places that will not be exposed.

Communication and Community Participation

All education, mobilization and service-based initiatives should seek to reduce the stigma of AIDS infection and encourage individual women and communities to take positive actions. These actions include:

—Voluntary counselling and HIV/AIDS testing;

—The use of a skilled attendant to ensure clean, safer deliveries;

—Promotion of good practices including rest and good nutrition for women and infants;

—Raising awareness of maternal to child HIV transmission, ways of reducing it (accessing health services, HIV/AIDS testing, alternatives to breastfeeding);

—Creation of peer support programmes for women and children living with HIV/AIDS; and

—Strengthening systems of community support for families affected by HIV/AIDS.

Support for and demand by communities for woman-focused HIV/AIDS services is essential to their sustainability, and for government and health systems to devote adequate resources to such services. HIV/AIDS awareness may also lead to increases in demand for quality maternal health services and skilled attendance at delivery.

☆ *In ZIMBABWE, UNICEF is supporting a government initiative to provide all students aged 9-19 with a weekly lesson on life skills and the facts about AIDS. For the first time, issues like sexual violence in the family, the sexual demands of teachers, and gender stereotypes and power are raised and discussed. Self-esteem and assertiveness training for youth are included. Students learn from reading, discussions, and by undertaking projects in the community (e.g., to investigate how people with AIDS are coping). The materials used in the programme are reviewed and approved by a committee that includes representatives of the National AIDS Programme, the Ministry of Education and major church denominations. A teacher training programme prepares current teachers and college students to teach the curriculum.*

Monitoring and Evaluation

The following process indicators can be used to assess the effectiveness of screening for sexually transmitted diseases, testing for HIV/AIDS, counselling services and treatment for HIV/AIDs and other STDs. Indicators include:

— coverage and content of prenatal and postnatal care services to include VCCT, STD/AIDS screening and treatment

— proportion of women who have been screened and/or treated

— proportion of women who have returned for HIV test results

— number of women treated with a short-course regimen of AZT

— number of C-sections on HIV-positive women and their outcome (transmission and recovery)

— number of women who received counseling on infant feeding

— number of infected women who are breastfeeding and who are not doing so

— overall breastfeeding rates (to prevent unnecessary decline in breastfeeding among HIV-negative women)

Qualitative data will also be needed on the quality of services and providers, ways to improve them, and the effectiveness of communication and community mobilization efforts.

Gender Violence and Discrimination

Objectives

To prevent gender-based violence through legal reform, increasing awareness about violence and its impact on women and children, and undertaking training programmes for the police, judiciary and health providers.

to ensure that supporting services for victims of gender violence are in place and are accessible.

Definition and Magnitude of Gender Violence

Gender violence is defined as any act of violence that results in or is likely to result in physical, sexual or psychological harm or suffering to women, including threats of such acts and/or coercion or arbitrary deprivations of liberty, taking place in public or private life.

Gender violence is a complex social phenomenon, deeply rooted in existing gender power relations, sexuality, self-identity and the structure of social institutions. It accounts for between 5% and 20% of healthy years of life lost by women aged 15 and 44.

Worldwide, as many as 25-50% of women will be beaten at some point in their lives by spouse or intimate acquaintance. 25-30% of all abused women suffer serial victimization, with many being beaten as frequently as once a week.

In the United States, 27-62% of women recall at least one incident of sexual abuse that occurred before age 18. Worldwide, prevalence ranges from 12-34% in surveys in the Netherlands, Canada, Norway, New Zealand, Britain and Germany. Very high rates were reported in small scale surveys in some developing countries.

Statistics on sexually transmitted diseases and sexual abuse from developing countries, particularly Africa, are disturbing. Some studies note that the majority of pregnancies in very young teens were due to rape or incest.

Cross-cultural data from rape crisis centers reveal that 40-58% of sexual assaults are perpetrated against

Key Partners

NGOs — select the most progressive NGOs on gender violence issues, that have the greatest capacity to serve as partners for programme development and advocacy.

Men and men's associations — changes in male attitudes are critical. To effect change requires training in violence prevention and anger management and discussions among men's groups on violence.

Medical associations — health professionals need to become aware of gender violence and be able to obtain the skills to identify and intervene in cases of gender violence. Screening for violence should be conducted with all patients.

Police, lawyers, and rights groups.

girls age 15 and under. Thirteen per cent to 32% are perpetrated against girls 10 and under. Most often the perpetrator is known to the victim.

Woman abuse seems to set the context for child abuse as well: Men are responsible for 80% or more of child fatalities, and in 50% of these the mother of the child was abused as well.

Needs Assessment

The needs assessment should seek to estimate the incidence of gender violence, laws and policies governing its prosecution, the availability of any supporting devices, and prevailing attitudes. Other issues include:.

— Are data available on the incidence of gender violence and the most common types?

— How is gender violence defined by national laws and policies? By the health and legal systems? By the communities?

— What are national laws and policies on gender violence?

— What are prevailing attitudes or cultural norms on gender violence?

— Do any programmes exist at national, facility or community levels to prevent violence, or provide supporting services to women who have been victims of violence and their children?

— Are any programmes in place to train or sensitize health providers, the police and teachers on recognizing gender violence and providing care or referral for victims?

Strengthening Policies

UNICEF staff can help to reduce gender violence by :

— Advocating for legal reforms and, if needed, new legislation to define the full range of acts that constitute gender violence and provide appropriate penalties. UNICEF can provide

Violence Against Women Across the Lifespan

Pre-Birth	*Sex-selective abortion; effects of battering during pregnancy on birth outcomes.*
Infancy	*Female infanticide; physical, sexual and psychological abuse.*
Girlhood	*Child marriage; female genital mutilation; physical, sexual and psychological abuse; incest; child prostitution and pornography.*
Adolescence and Adulthood	*Dating and courtship violence (e.g. acid throwing and date rape); economically coerced sex (e.g. school girls having sex with "sugar daddies" in return for school fees); incest; sexual abuse in the workplace and in schools; rape; sexual harassment; forced prostitution and pornography; trafficking in women; partner violence; marital rape; dowry abuse and murders; partner homicide; psychological abuse; abuse of women with disabilities; forced pregnancy.*

technical support to government ministries in the review of existing legal codes and help draft new or amended provisions and protocols.

— Encouraging governments that have ratified CRC and CEDAW to report to the Committees on their actions to eliminate gender violence to ensure states' accountability for actions to eliminate and punish gender violence.

— Encouraging dissemination of medical, community health and social science research that highlights the impact of gender violence.

Capacity Building

— Provide training for health staff in identification, treatment and reporting of gender violence, and how to provide compassionate care.

— Support training programmes to help police, judges and health care professionals recognize and deal more effectively with victims and perpetrators of violence.

— Support the establishment of services for victims of gender violence and include the subject in school, youth and outreach programmes. These could include: schools, women's shelters, crisis centers and 24-hour telephone "hot lines", child care, legal assistance, job training and education, and referral and support groups.

Communication and Community Participation

Use all available media to raise awareness of gender violence and its consequences for women, children and families.

— Promote community responsibility

Pregnancy and Violence

Pregnancy can often be a trigger for violence, and is a risk factor for abuse due to added stress in relationship or because it makes women vulnerable to abuse. Women who are abused are 3 times more likely than those who are not abused to delay registering for prenatal care; they are also anxious and distressed. Violence has numerous negative consequences for maternal health and infant health and survival. These include: unwanted pregnancies, unsafe abortions, miscarriage or fetal damage, physical injuries, mental disorders and adding to maternal morbidity and mortality.

Female Genital Mutilation

Female genital mutilation (FGM) is a highly specific form of gender violence usually carried out against girls between the ages of a few weeks and puberty. There is a trend toward carrying out FGM at an earlier age. FGM causes serious vaginal and urinary bleeding and infections that can result in death. Although good data is limited, FGM has been linked to a range of maternal health risks, including hemorrhage, trauma in labour (perineal damage), obstructed menstrual flow, repeated urinary tract infections, vaginal fistulae, cysts and scars, and potentially higher risk of HIV infection. It is likely that the risks of maternal or neonatal death from pregnancy or delivery complications are greater in women who have undergone FGM, particularly when births take place without the assistance of a skilled attendant.

[For details on programming to reduce FGM, refer to UNICEF programming guidelines and to the WHO/UNFPA/ UNICEF/World Bank Joint Statement. For more information on FGM and safe motherhood, refer to WHO, "Management of pregnancy, childbirth and the postpartum period in the presence of female genital mutilation", report of a WHO Technical Consultation, 15-17 October, 1997, publication date 1998.]

and accountability by involving them in the design and establishment of support services for victims of violence.

— Work with NGOs that have previously gained the confidence of the communities in which they work to raise the issue of family violence for discussion and action.

— Promote behavioural change programmes and social integration mechanisms to challenge cultural norms and practices that condone violence against girls and women.

Monitoring and Evaluation

The following indicators should be tracked:

— the number of supporting services and/or facilities available;

— the number of women who have reported incidences of violence to local or national authorities, comparing the rates from before and after any legal reforms;

— the number of women who have received medical or social services for violence, comparing the rates from before and after legal or policy reforms;

— attitudinal and behavioral change and level of awareness of the issue of gender violence will have to be measured through qualitative means; and

— the number of victims (through surveys).

Resources

The Programme Documentation Centre (PDC) is an Intranet-based resource that contains UNICEF Executive Board Documents, Programme Directives, Manuals, Best Practices, Programme Briefs, Statistics, Monitoring and Evaluation reports, News Flashes etc. The PDC is located on the Intranet (a restricted site on the Internet) and requires the user to enter his/her username and password. URL address: http://www.unicef.intranet.unicef.org

The Programme Knowledge Network, also located on the Intranet, provides UNICEF staff worldwide with an electronic forum for sharing state of the art information and programme experiences, discussing topical issues, and contributing to the formulation of programme policies, procedures, and technical guidelines. The PKN includes the following components: policies and procedures, a discussion forum, lessons learned, a newsletter, and links to other websites. URL address: http://www.unicef.intranet.unicef.org/pkn/pkn.nsf

The Safe Motherhood Library, included in this Guideline, is an annotated bibliography of recommended readings. These are categorized under general women's health, health and human rights, maternal mortality, communication for safe motherhood, clinical guidelines and reports, situation analysis, monitoring and evaluation. Also included is a list of UNICEF publications on Safe Motherhood and other women's health issues. The library is also available in the Health Knowledge Network under the PKN.

A reference list of Supplies, Equipment and Drugs is available under the Health Knowledge Network. This list includes the contents of UNICEF's Clean Birth Kit and Professional Midwifery Equipment. It also describes the minimum equipment and supplies required at first referral level hospitals (extracted from Essential Elements of Obstetric Care at First Referral Level, WHO, Geneva, 1991).

A database of key organizations and contact persons at country, regional and international levels that are working in the areas of maternal or reproductive health and women's rights is also available on the Health Knowledge Network. These organizations and individuals can provide technical expertise or collaborate in initiatives to reduce maternal mortality by working in the areas of programme development, advocacy, training, research, public education and communication.

Copies of the above materials can also be obtained from the Health Section, Programme Division at UNICEF, New York.

Managing for Quality is a website, jointly managed by UNICEF and the Management Sciences for Health (MSH), for developing a practical knowledge-bank that programme managers can use to improve the quality of health programmes. This website includes tools and techniques for implementing quality improvement processes, synthesis of best practices and lessons learned, and a forum for

exchanging ideas. E-mail users, who do not have access to the Internet, can also access information from this website.
URL address: http://erc.msh.org/quality.

The Reproductive Health Library is a once-a-year electronic review journal produced by the World Health Organization for use by health care professionals. It contains information on management of reproductive health problems, summaries of evidence-based medical and clinical information on reproductive health from the Cochrane Library, and information on current research projects being undertaken by UNFPA, UNDP, WHO, UNDP, etc. The journal also lists funding agencies and non-governmental organizations active in the area of reproductive health. This journal-on-a-disk can be obtained free of charge by e-mailing Mr. Jitendra Khanna at khannaj@who.ch

Advocacy

UNICEF print materials include: a press release on the occasion of Safe Motherhood Day; a background document "UNICEF: Building Mother Friendly Societies"; a brochure entitled "Facts on Maternal and Neonatal Mortality"; Questions and Answers; the Executive Director's speech on World Health Day (7 April 1998); and Country Fact Sheets (Afghanistan, Bangladesh, Bolivia, Burundi, Indonesia, Mali, Swaziland and the United States). A document titled "A Little Investment Goes A Long Way In Saving A Mother's Life" illustrates the cost of maternal health interventions with examples.

A list of photos/slides relating to Safe Motherhood, categorized under midwifery training, prenatal care, postnatal care, home deliveries, caesarian section, rooming-in hospital programmes/BFHI and International Women's Day can be obtained from the Design and Photography Section in the Division of Communication (DOC).

A photo exhibit entitled "Safe Motherhood : An Attainable Goal" consisting of 6 text panels and an introductory panel - with photos, charts, posters and a home delivery kit - is available at UNICEF Headquarters.

A television B-roll (BETA/PAL and BETA/NTSC) on Safe Motherhood in various countries and a four-minute advocacy video on Safe Motherhood have been produced by the Broadcasting & Electronic Communication Section, DOC.

Requests for advocacy materials including printed materials, photographs, videos and the exhibit can be sent to the Programme Division or the Division of Communication at UNICEF New York.

The Inter-Agency Group of the Safe Motherhood Initiative has a website dedicated to Safe Motherhood that includes Public Service Announcements, Safe Motherhood fact sheets, case studies, a brochure, and ten central action messages. Copies of these materials in English, French or Spanish can be ordered from Family Care International by e-mail at smi10@familycareintl.org. URL address: http://www.safemotherhood.org

Glossary

Amniotomy	Artificial rupture of the membranes to induce or augment labour
Antenatal	The period, during pregnancy, before giving birth
Asphyxia	An extreme condition caused by lack of oxygen and excess carbon-dioxide in the blood
Bimanual Compression of Uterus	A procedure to control post-partum hemorrhage where the health worker applies pressure to the uterus with her hands to stimulate the uterus to contract
Breech Presentation	When the fetus is lying in such a way that its buttocks are at the lowest end of the uterus, the fetus usually passes through the birth canal feet first
Community Midwife	A midlevel birth attendant; usually a young, literate woman with 1-2 years of hands-on training, who practices in her own community
Ectopic pregnancy	The fertilized egg becomes implanted outside the uterus – to the abdominal cavity, ovary, fallopian tube or cervix
Episiotomy	An incision made during birth into the thinned-out vaginal opening to enlarge it and avoid over-stretching and damage to the pelvic floor
First referral level	The level of the health system that is designed and equipped to provide comprehensive emergency obstetrical care (EOC) services
Fistula	An abnormal passage between two cavities (vagina/bladder, vagina/ rectum)
Folic acid	A constituent of Vitamin B complex, necessary for the development of normal red blood cells
Gender Violence	Any act of violence that results in or is likely to result in physical, sexual or psychological harm or suffering to women, including threats and coercion
Hypertension	High blood pressure, usually above 140/90
Intrapartum	The time between the onset of the first stage of labor and completion of delivery
Labor	Childbirth, which takes place in three stages. First stage labor includes dilation of the cervix, second stage is expulsion of the fetus, and third stage is expulsion of placenta and membranes
Late Maternal Death	Death of a woman from direct or indirect obstetric causes more than 42 days but less than one year after the termination of a pregnancy
Low Birth Weight	A live-born infant with a birth weight of less than 2,500g (5 lbs.)
Manual removal of the placenta	Introducing a hand into the uterus to remove a retained placenta
Maternal death	The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.
Maternal Mortality Rate	The number of maternal deaths per 100,000 women aged 15-49 per year
Maternal Mortality Ratio	The number of maternal deaths per 100,000 live births
Midwife	A professional practitioner who has undergone comprehensive training in an accredited midwifery program, and is equipped to assist normal births and to diagnose and manage complications during childbirth
Neonatal period	The period starting at birth and covering the first 28 days of life

Neonatal Mortality Rate	The number of deaths in the first 28 days of life per 1,000 births
Nurse Midwife	A nurse midwife has received, in addition to the regular nursing curriculum, training in midwifery skills
Obstructed Labour	A delivery complication often caused when the infant's head can't pass through the mother's pelvis, or the infant is incorrectly placed for the journey through the birth canal
Oxytocic	A term applied to any drug that stimulates contractions of the uterus in order to induce or accelerate labor
Partogram	A chart or card used to record the progress of labor, including dilation of the cervix, baby's heart beat, contractions, blood pressure and pulse
Pelvic Inflammatory Disease (PID)	A condition that occurs when bacteria from the vagina or cervix infects the uterus and/or fallopian tubes
Perinatal/Maternal Audit	An in-depth inquiry into the circumstances leading to a maternal or infant death, based on interviews with health care providers and review of medical records
Perinatal period	The period after 22 weeks pregnancy (the third trimester), birth and the first seven days of an infant's life
Perinatal Mortality Rate	The number of late fetal deaths (after 22 weeks of gestation) plus the number of deaths in the first seven days of life per 1,000 live births
Placenta previa	An abnormally situated placenta, usually over the mouth of the uterus
Post-natal period	From the end of labor to the 42nd day after delivery
Postpartum hemorrhage	A hemorrhage (loss of blood) that occurs after childbirth, usually in the first two days after delivery
Pregnancy related death	The death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the cause of death
Process indicators	Indicators which measure the processes which can reduce maternal deaths, as opposed to measuring the outcome, maternal mortality, itself.
Prolapsed uterus	Uterus protrudes into the lower part of the vagina resulting from weakening uterine supports
Prolonged labor	Labor lasting for more than 18 hours
Puerperal sepsis	Infection of the reproductive tract occurring during labor or before the 90th day postpartum
Retained placenta	Situation where the placenta is not spontaneously or completely delivered within one hour after childbirth
Sepsis	Generalized infection of the body by pathogens
Sisterhood method	An indirect demographic technique for estimating maternal mortality through interviewing respondents about the survival of their adult sisters. The resulting estimates of maternal mortality generally refer to a point 10-12 years before the survey.
Stillborn	A baby which has issued forth from its mother after the 28th week of pregnancy but has never breathed or shown any signs of life
Tetanus Infection	Caused by tetanus bacteria, can result in fever, repeated convulsions and death
Traditional Birth Attendant	A TBA has had one month or less of formal training and delivers babies according to local customs and beliefs
Verbal Autopsy	Interview with relatives or neighbours of a deceased woman to reconstruct events prior to death in order to reach a medically accepted diagnosis.

The Safe Motherhood Library

Reports, books, articles and other publications are listed under the following headings:

Women's General Health

World Health Organization. Women's Health: Improve our Health, Improve the World. A position paper for the Fourth World Conference on Women, Beijing, China. Document WHO/FHE/95.8.

Prepared for the Fourth World Conference in Beijing in 1995, this paper outlines the reasons why women's health is important and the range of factors that affect women's health. It also considers the major health problems and issues that affect women, and finally explores the role of WHO in women's health.

Tinker A, Daly P, Greene C, Saxenian H, Lakshminarayanan R, Gill K. Women's Health and Nutrition: Making a Difference. Washington DC: World Bank, 1994.

This is a comprehensive presentation of women's health from pre-birth to old age. It is well documented and explains the relationship between women's health and socio-economic development. It also includes summary appendices of recommended cost-effective interventions for women's health at each stage of the life cycle and indicators to monitor progress.

Arkutu AA. Healthy Women, Healthy Mothers: An Information Guide (2nd ed.). New York: Family Care International, 1995.

This book serves as a resource for health workers and provides complete and accurate information on women's health needs and problems. It is written in simple, accessible language and includes many illustrations so that it can be used in communities to share information about women's health, reproduction and child-bearing.

Health and Human Rights

Cook RJ. Women's Health and Human Rights: The Promotion and Protection of Women's Health Through International Human Rights Law. WHO: Geneva, 1994. Also available in French.
Written by a human rights lawyer, this book explores the implications of international human rights treaties on improving the health of women. Also discussed, are methods by which these treaties can be used to catalyze action among concurring governments. This is an excellent summary of all the relevant international statements that offer guidance concerning fundamental human rights related to health care for women

Alcala M. Commitments to Sexual and Reproductive Health and Rights for All: Framework for Action. New York: Family Care International, 1995.
This user-friendly document provides a comprehensive check-list of governmental commitments to reproductive health and rights, made in agreements reached at Beijing, Cairo, Copenhagen and Vienna conferences. It is a reference tool to be used in implementation of these commitments -- through developing and revising relevant policies, laws and programmes; advocacy and awareness-raising; monitoring and follow-up. This document is available in English, Spanish and French.

International Planned Parenthood Federation. IPPF Charter on Sexual and Reproductive Rights. London: IPPF, 1996.
This booklet sets out the ethical framework for IPPF's activities, in the form of a Charter outlining 12 essential sexual and reproductive health rights. In the first section, it interprets the charter rights within the context of IPPF's mission, and in the "Standards" section, it contains excerpts from relevant international human rights instruments.

Sen G, Germaine A, and Chen L. (eds.) Population Policies Reconsidered: Health, Empowerment, and Rights. Boston: Cambridge University Press, 1994.
This collection of essays by a diverse group of scholars, social activists, and policy makers critically re-examines population policies and family planning from a rights-based perspective.

Reduction of Maternal and Neonatal Mortality

Anne Tinker, Marjorie A. Koblinsky with contributions from Patricia Daly... [et al]. Making Motherhood Safe. The World Bank Discussion Papers, 202. 1993.
This paper aims at assisting policy makers and programme mangers to design and implement programmes to reduce maternal mortality. It discusses the lessons for reducing maternal mortality derived from evidence and research in both developing and industrial countries. It also recommends priorities and programme strategies for making family planning services and maternal health care more effective by improving quality, increasing access, and educating the public about the importance of such services.

World Health Organization. Mother-Baby Package: Implementing safe motherhood in countries. Document WHO/FHE/MSM/94.11. Also available in French.
This document describes a strategy for reducing maternal and neonatal mortality in developing countries. It focuses on the five main causes of maternal mortality and the two main causes of neonatal mortality and describes interventions to be applied at each level of the health care system. Guidelines are provided for implementation and information on supplies, essential drugs, instrument kits needed at each level and their costs can be found in the technical supplement.

Maine D. Safe Motherhood Programs: Options and Issues. New York: Center for Population and Family Health, Columbia University, 1991. Also available in French.
In this chartbook, the potential effectiveness of various strategies for reducing maternal deaths in developing countries are explored. Based on the findings of this analysis of the literature, a general strategy is proposed. The first priority is to ensure access to medical treatment for obstetric emergencies. Key activities in this project are upgrading existing facilities and staff, and informing the community about danger signs during pregnancy and during and after delivery. The publication also includes a preliminary cost-effectiveness analysis.

Programme Advisory Note. Reducing Maternal Mortality and Morbidity. UNFPA. Document ISBN:0-89714-483-X.
This Programme Advisory Note provides practical information, based on evaluation and research activities, to guide UNFPA and other interested parties in the implementation of programmes to reduce maternal mortality and morbidity. It highlights actions at the various levels, i.e.family, community and societal actions, legislative and policy actions, health- sector actions, actions for health planners and managers, as well as specific actions for UNFPA in building health-sector capacity to reduce maternal mortality.

The Safe Motherhood Inter-Agency Group. The Safe Motherhood Action Agenda: Priorities for the Next Decade. Conference Report prepared by Ann Starrs, Family Care International. 1998.
This is a report on the Safe Motherhood Initiative Technical Consultation held in Colombo, Sri Lanka from 18-23 October, 1997. The report articulates and presents programmatic lessons learned from the Initiative's first decade, and identifies clear priorities and strategies for the future towards improving maternal health.

Ross SR, Promoting Safe Maternal and Newborn Care: A Reference Manual for Program Managers. Atlanta: CARE, 1998. Also available in French and Spanish.
The aim of this document is to serve as a technical reference that summarizes the latest literature and lessons learned in safe motherhood initiatives, in a user-friendly format for policy-makers, programmers and field staff. It provides programming and monitoring information, as well as sections on current best practices and country examples.

Prevention of Maternal Mortality Network: PMM Results Conference Abstracts. Columbia University, 1996.
This booklet presents lessons learned by the teams of the PMM Network in implementing emergency obstetric care projects to reduce maternal mortality in Ghana, Nigeria, Sierra Leone and the United States. These abstracts indicate that improving emergency obstetric care is one of the interventions to reduce maternal mortality, that it is neither too costly nor too difficult, and that it requires collaboration at various levels (the government, the community -- especially midwives, and NGOs).

Health Section, Programme Division. Programming for Safe Motherhood. UNICEF, 1999. Also available in French and Spanish.
This document will serve as a technical guideline for UNICEF staff as well as health planners, policymakers and partners in implementing safe motherhood programmes. It emphasises UNICEF's view of maternal mortality as a social problem that requires a multisectoral effort to integrate planning and implementation of interventions for improving maternal and newborn survival and health. The document provides guidance on monitoring and evaluation of the various interventions and includes country examples of successful interventions.

Midwifery

Marshal AM, Buffington ST. Life-Saving Skills Manual for Midwives. Washington, D.C.: American College of Nurse Midwives, 1991.
This manual provides midwives working in primary rural and isolated practical settings with the knowledge and skills needed to perform life-saving techniques. It was developed as a continuing education resource for practicing midwives, and for tutors and students in midwifery education programs. Learning modules include prevention and treatment of anemia and pregnancy-induced hypertension, monitoring labor progress, episiotomies and repair of lacerations, prevention and treatment of hemorrhage, resuscitation, prevention and management of sepsis, hydration and rehydration, vacuum extraction, and symphysiotomy.

Feuerstein M. Turning the Tide: Safe Motherhood, A District Action Manual. London: Macmillan Press, 1993.
Written in clear and straightforward language, this book is designed for frontline planners, mangers, and practitioners working at the district level. It emphasizes the importance of strengthening the district first referral level hospitals and health centres, and linking them with community-base networks for maternal care.

Murray SF (Ed.). Baby Friendly/Mother Friendly: International Perspectives on Midwifery. London: Mosby, 1996.
This volume explores the role of the midwife in the provision of high-quality maternity care in both industrialized and developing countries. The collection uses a variety of rich case studies to illustrate the midwife's role in the promotion and support of breastfeeding, and in attending to the needs of the mother.

Murray SF (Ed.). Midwives and Safer Motherhood: International Perspectives on Midwifery. London: Mosby, 1996.
This companion volume to Baby Friendly/Mother Friendly provides insight into the ways in which midwives may be involved in the reduction of maternal mortality and morbidity. It explores research in safer motherhood, midwives' changing roles, midwifery education and the midwifery profession internationally.

World Health Organization. Education Material for Teachers of Midwifery. Geneva, 1996.
This is a set of five training manuals aimed at equipping midwives with life saving skills and were widely field tested in Africa, Asia, and the Pacific prior to finalization. The manuals aim to communicate in an imaginative way the sound knowledge that midwives need in order to think critically, make the right decisions, and apply the appropriate clinical skills, particularly in life-and-death emergencies.

Communication for Safe Motherhood

UNICEF, 1997. Role of Men in the Lives of Children: A Study of How Improving Knowledge About Men in Families Helps Strengthen Programming for Children and Women. Executive Summary in English, French and Spanish.
This paper is part of an ongoing effort to better understand the role of men in the lives of children and families. It provides suggestions for the design and evaluation of programmes that seek to achieve balanced roles and responsibilities within households, discusses expected outcomes of male-targeted strategies, and suggests indicators for measuring success.

Inter-Agency Group for Safe Motherhood. Safe Motherhood Action Messages: Fact Sheets. New York: Family Care International, 1998. Also available in French and Spanish.
This series of fact sheets provides concise information about maternal mortality and priority areas for intervention. Two sets are available -- although they are both very user-friendly, one set is written in less technical language.

Berer M. Women's Groups, NGOs, and Safe Motherhood. Geneva: WHO, 1993.
This document describes a number of activities undertaken by women's groups and other NGOs to prevent maternal and morbidity within the broader context of reproductive health. The activities profiled include community based-research, the development of IEC materials, media campaigns, provision of health services, and the organization of local, regional, and international events such as meetings and workshops.

Starrs AM, Rizzuto RR. Getting the Message Out: Designing an Information Campaign on Women's Health. New York: Family Care International, 1995.
This booklet offers step-by-step guidelines on how to design, implement, and evaluate an effective community-level information campaign to improve women's reproductive health. Special emphasis is placed on safe motherhood issues.

World Health Organization. The Healthy Women Counselling Guide. Demonstration Package. WHO, 1997.
This package includes the Healthy Women Counselling Guides (HWCG) from 3 African countries: Kenya, Nigeria, and Sierra Leone, audio-cassettes of radio programmes and illustrated materials. The guide is aimed at policy makers, NGOs, researchers, health workers, and communicators who may be interested in working together on a HWCG project. It discusses the challenges of reaching women with health information, discusses factors affecting women's health in 3 African countries and identifies constraints and details positive interventions.

World Health Organization. Communicating Family Planning in Reproductive Health: Key Messages for Communicators. Document WHO/FRH/FPP/97.33
Communicating the benefits of family planning to individuals, communities, and policy makers is the first step in making services more accessible. This booklet synthesizes the lessons learned from years of research and experience in implementing family planning programmes around the world. These key messages and the information that supports them can be used to help stimulate discussion and develop effective communication strategies.

Clinical Guidelines & Technical Working Group Reports

Enkin M, Keirse MJNC, Chalmers I. A Guide to Effective Care in Pregnancy and Childbirth. Oxford: Oxford University Press, 1989. etc \l2 "Enkin M, Keirse MJNC, Chalmers I. A Guide to Effective Care in Pregnancy and Childbirth. Oxford: Oxford University Press, 1989.
This book is the condensed version of a comprehensive 1500-page study of the effects of care given and received during pregnancy. While its content is quite technical, it is presented in a readable, concise format and is a good reference book for professionals involved in maternity care, policymakers and planners, and pregnant women. It contains useful charts that, on the balance of evidence, outlines recommended procedures, indicating those that need more research and those that should be abandoned.

World Health Organization. Care in Normal Birth. A practice Guide. Document WHO/FRH/MSM/96.24. Also available in French.
This guide establishes universal guidelines for the routine care of women during uncomplicated labour and childbirth. It reflects the international consensus of safe motherhood experts on the most care effective practices for normal births, based on a critical review of what considerable research has to say about the effectiveness and safety of 59 common procedures and practices.

Rooney C. Antenatal Care and Maternal Health: How Effective Is It? A Review of the Evidence. Document WHO/MSM/92.4. Also available in French.
This is a critical review of scientific evidence that can help determine whether specific antenatal interventions are effective in reducing maternal mortality and morbidity in developing countries. The study aims to distinguish interventions of proven efficacy from those whose potential value awaits confirmation.

World Health Organization. Antenatal Care: A report of a Technical Working Group. Document WHO/FRH/MSM/96.8
This report presents a comprehensive review of current antenatal care practices and the basic equipment, procedures and supplies used to provide care from the point of view of cost, maintenance, validity and skills required to employ them. Based on this review, the report makes recommendations for the identification of high-risk pregnancies and their management.

World Health Organization. Detecting Pre-eclampsia: a practical guide. Document WHO/MCH/MSM/92.3.
The chief aim of this booklet is to provide instructions for health workers that will help them in identifying early signs and symptoms of complications and pre-eclampsia. It includes guidelines for accurately measuring blood pressure, detecting when blood pressure equipment is faulty and taking correctional action, measuring proteinuria, and assessing oedema.

World Health Organization. Obstetric and Contraceptive Surgery at the District Hospital: a practical guide. Document WHO/MCH/MSM/92.8. Also available in French.
This document provides guidance to non-specialist doctors providing obstetric and contraceptive surgery and describes the anaesthetic services necessary in small hospitals. The guide describes obstetric procedures considered essential for treating the major complications of pregnancy and childbirth as well as procedures for female sterilization and insertion and removal of intrauterine devices.

World Health Organization. Essential Elements of Obstetric Care at the First Referral Level. Geneva. WHO, 1991. Also available in French.
This concise and easy to read book contains a wealth of information on the indications, level of skill, and facilities required for a wide range of basic and emergency obstetric care functions. Practical details of supply and pharmaceutical needs for Emergency Obstetric Care are also included. The information is essential for needs assessment and program planning.

World Health Organization. Maternity Waiting Homes. A review of experience. Document WHO/RHT/MSM/96.21
This report suggests that maternity waiting homes could be an alternative low-cost solution to the problem of poor access to maternal care. It provides information on the history, purpose and crucial elements of maternity waiting homes and presents cases studies from Africa, South America and the Caribbean.

World Health Organization. Postpartum care of the mother and newborn: a practical guide. Document WHO/FHE/MSM/98.3 Also available in French.
This document responds to a long-felt need for state-of-the-art information for this critical but under-researched and under-served period of the life of the woman and her newborn. It provides a comprehensive view of maternal and newborn needs at a time which is decisive for their life and health. It examines the major maternal and neonatal health challenges, nutrition and breastfeeding, birth spacing, immunization and HIV/AIDS before concluding with a discussion of the crucial elements of care and service in the postpartum period.

World Health Organization. Care of the Umbilical Cord: A review of the evidence. Document WHO/RHT/MSM/98.4
Clean cord care at birth and in the days following birth is effective in preventing cord infections and neonatal tetanus. In this document, WHO makes recommendations on clean cord care that are applicable both to home deliveries and to institutional deliveries and outlines areas for future research.

World Health Organization. Essential Newborn Care. Report of a Technical Working Group. Document WHO/FRH/MSM/96.13
This report summarizes the discussions of the Technical Working Group on elements of essential newborn care at home, health centre and hospital. It presents simple and effective interventions for ensuring a live-born infant, that are available and at all three levels of care.

World Health Organization. Basic newborn resuscitation: a practical guide (TWG Report). Document WHO/FRH/MSM/98.1
This practical guide explains a simple method of newborn resuscitation capable, when carried out quickly and correctly, or reviving more than three-quarters of infants who do not breathe at birth. The document aims to give decision-makers - whether responsible for national programmes or in charge of local facilities - all the information needed to introduce the method and understand what it will require in terms of policies, training, equipment and supplies.

World Health Organization. Thermal Protection of the Newborn: a practical guide (TWG Report). Document WHO/FRH/MSM/97.2. Also available in French.
This is an illustrated guide that reflects the consensus reached by an international group of experts on prevention and management of hypothermia in newborn babies. It aims to increase awareness of the severe risks posed by hypothermia while also giving health workers the practical knowledge needed to take appropriate action, whether to prevent hypothermia in the first place or to save an endangered life.

World Health Organization. Management of the Sick Newborn. Report of a technical working group. Document WHO/FH/MSM/96.12
This is a report of a Technical Working Group meeting that reviewed the technical soundness and feasibility of interventions for the first week of life. It describes, in a user-friendly manner, the most common newborn illnesses, danger signs for mothers/families and health workers to be aware of, assessment criteria, and recommends appropriate treatment at the health centre.

World Health Organization. Care of Mother and Baby at the Health Centre: a practical guide. Document WHO/FHE/MSM/94.2.
This document defines the essential functions, tasks, and skills needed for the comprehensive care of mothers and babies at the first referral level. Both normal care and life-saving emergency procedures are covered. The integration of midwifery services through referral and support systems is also described. The report presents a series of recommendations designed to assist health planners and programme mangers in efforts to improve access to health and to decentralize maternal and newborn health care.

Situation Analysis, Monitoring and Evaluation

World Health Organization, Family and Health Section. Safe Motherhood Needs Assessment. Geneva: WHO, 1996.
This needs assessment package focuses on systems operations and service delivery. It is highly recommended for preparation of projects designed to upgrade district hospitals and health centers. It can be used nationally or regionally. Although it comes as a complete package, careful qualitative, translation and back-translation work must be done ahead of time to make sure that questions are understood and worded appropriately.

UNICEF/WHO/UNFPA. The Sisterhood Method for Estimating Maternal Mortality: Guidance Notes for Potential Users. New York: UNICEF, 1998.
This is a report of a meeting held in 1998 and describes the constraints and advantages of using the sisterhood method to estimate maternal mortality.

WHO/UNICEF/UNFPA Guidelines for Monitoring the Availability and Use of Obstetric Services. UNICEF. 1997.
These Guidelines discuss two approaches to monitoring progress towards reduction of maternal mortality. It describes the constraints in using the conventional method of monitoring the level of maternal mortality using indicators such as maternal mortality rates and ratios. The guidelines recommends an alternative approach based on monitoring the processes or interventions aimed at reducing maternal mortality and presents a series of process indicators that assess the availability, use and quality of obstetric services along with guidance on data collection and interpretation.

World Health Organization. Progress in Human Reproductive Research. Selecting indicators for monitoring reproductive health. Document WHO/RHT/HRP/98.45.
This issue of Progress focusses on reproductive health indicators, describes the criteria for selecting indicators, and recommends a minimal list of 15 indicators.

World Health Organization. Selecting Reproductive Health Indicators: a guide for district managers. Document WHO/RHT/HRP/97.25. Also available in French.
This guide take the district manager through the process of selecting appropriate indicators to review and improve current services, integrate existing services, and develop new services in the area of reproductive health.

World Health Organization. Reproductive Health Indicators for Global Monitoring: Report of an interagency technical meeting. Document WHO/RHT/HRP/97.27
This report of the Working Group on Reproductive Health includes: a review of country experiences in strengthening health information systems for monitoring reproductive health, UNICEF experience in monitoring the World Summit Goals for Children and lessons learned by WHO in evaluating progress towards Health for All. The group reached consensus on 15 reproductive health indicators for the purpose of global monitoring

Maine D, Akalin MZ, Ward VM, Kamara A. The Design and Evaluation of Maternal Mortality Programs. New York: Columbia University, 1997.
This is a technical manual developed with UNDP, outlining strategies used by the Prevention of Maternal Mortality Network (PMM). It provides guidance and tools for the design and evaluation of maternal mortality programs, and emphasizes collaboration and capacity-building.

Campbell O. Lessons Learnt: A decade of measuring impact of safe motherhood programmes. London: London School of Tropical Medicine and Hygiene, 1997.
This booklet briefly describes the insights gained by the London School of Tropical Medicine and Hygiene in measuring the change in maternal mortality and morbidity resulting from a decade of programme efforts in Safe Motherhood.

Nutrition

Gillespie S. Improving Adolescent and Maternal Nutrition: An Overview of Benefits and Options. New York: UNICEF, 1997.
This paper considers the problem and consequences of adolescent and maternal malnutrition with respect to pregnancy and its outcomes for both mother and child. It also reviews experiences with different approaches for improving nutrition, and discusses a number of key options for action.

Engle P, Lhotska L, Armstrong H. The Care Initiative. Assessment, Analysis and Action to Improve Care for Nutrition. New York, UNICEF, 1997.
This document provides community members, UNICEF programme staff and government counterparts the means of assessing existing care practices at the household level, and analysing the resources and structures which determine them. Its ultimate aim is to facilitate, with full participation of women caregivers, the planning of action for improved care for nutrition.

Rebecca J. Stoltzfus, Michele L. Drefuss. Guidelines for the use of iron supplementation to prevent and treat iron deficiency anemia. INACG/WHO/UNICEF 1998.
This booklet provides guidance to public health planners and managers on controlling iron deficiency anaemia. The main focus of the guideline is on iron supplementation programmes and parasite control, but it also acknowledges the beneficial role that food fortification and dietary diversification can play in controlling iron deficiency anaemia.

World Health Organization. WHO and the Micronutrient Initiative. Safe Vitamin A dosage during pregnancy and lactation. Recommendations and report of a consultation. Document WHO/NUT/98.4.
This report gives an overview of what is known about needs for Vitamin A among pregnant women and their fetuses and among lactating women and their nursing women.
It provides guidance on the safe use of Vitamin A supplements for women during pregnancy and the first six months after delivery and for infants under six months of age as well as the relevant programmatic and policy implications.

Adolescents and Young People

UNICEF. Youth Health - For a Change: Notebook on programming for young people's health and development. 1997. Being translated in French, Spanish and Arabic.
This programming notebook outlines a framework for programming to improve and maintain the health and development of young people, to highlight key programme elements and principles, and provide UNICEF offices and partners with approaches on programming for young people. It also provides references to other resources, organisations, people and materials that are available to support the acceleration of national programme efforts.

UNICEF/World Health Organization. A Picture of Health. 1995.
This review brings together information from a wide range of sources to provide a comprehensive picture of what is known and not known about the health of young people aged 10-24 years in developing countries. It includes an annotated bibliography of 43 key publications on young people's health. It is an important reference for prioritizing actions to improve the health and development of this age group.

Mensch, Barbara S. Judith Bruce, Margaret E. Greene. The Unchartered Passage: Girls' Adolescence in the Developing World. Population Council, 1998.
This monograph focusses on the needs of adolescent girls in developing countries, presenting illustrative statistics and examines their lives in a soico-economic context. The authors call for increased attention and investment in this area, and outline an agenda for policy, programmes, and research to improve the lives of adolescent girls.

Family Planning

Network, Family Health International, Vol. 17 No.4, 1997. Reproductive Health after Pregnancy. Also available in French and Spanish.
This issue of FHI's quarterly newsletter focuses on the important needs of a woman following pregnancy – care for her newborn, her own need to recover from pregnancy and delivery, her need to space or limit her childbearing in order to protect her own health and that of her infant.

Network, Family Health International, Vol. 19 No.1, 1998. Improving Service Quality. Also available in French and Spanish.
This issue of FHI's newsletter focusses on the need to improve the quality of family planning services through "a client perspective".

World Health Organization. Improving Access to Quality Care in Family Planning: Medical Eligibility Criteria for Contraceptive Use. Document WHO/FRH/FP/96.9. Also available in French.
This document provides state-of-the-art and evidence-based information on medical eligibility criteria for selection of contraceptive methods. It places family planning in the context of human rights (CEDAW. articles 10, 12, 14 and 16) and is an important step in improving access to high quality family planning information and services.

Hatcher RA, Rinehart W, Blackburn R, Geller JS and Shelton JD. The Essentials of Contraceptive Technology. Baltimore, Johns Hopkins University School of Public Health, Population Information Program, 1997.
This handbook has been prepared by JHU in collaboration with WHO and USAID. It aims at providing state-of-the-art information on family planning methods and uses a simple, client-centred approach. It helps health care providers give their clients appropriate information and advice on method use and other reproductive health concerns, enabling men and women to make informed choices while safeguarding them against avoidable negative health effects.

Sexually Transmitted Diseases

Gina Dallabetta, Marie Laga, Peter Lamptey. Control of Sexually Transmitted Diseases: A Handbook for the Design and Management of Programs. AIDSCAP. Family Health International.
This handbook is a valuable tool in guiding funding decisions, training, service design and delivery, and community education on programmes for control of sexually transmitted diseases (STDs) in resource-poor settings. The handbook recommends integration of behavioural and biomedical approaches including curative treatment to prevent and control STDs.

World Health Organization. Management of Sexually Transmitted Diseases. WHO/GPA/TEM/94.1
This document contains WHO recommendations for the comprehensive management of patients with STD within the broader context of control, prevention and care programmes for STD and HIV infection. The document also provides information on the notification and management of sexual partners, and on STDs in children.

HIV/AIDS

UNICEF. The Prescriber. HIV/AIDS: Prevention, treatment and care. Numbers 16 & 17, September 1998.
This issue of the Prescriber focusses on the prevention and control of HIV/AIDS which has now become one of the top 10 killers in the world. This issue briefly describes the disease and its transmission, its impact on young people and children, suggests actions for health workers to prevent and treat HIV actions, and lists WHO recommended dosages/treatment of STDs and HIV-related diseases.

HIV and Infant Feeding: Guidelines for decision-makers. Document WHO/FRH/NUT/CHD/98.1, UNAIDS/98.3, UNICEF/PD/NUT/(J)98-1.
These guidelines provide state-of-the-art information on what is known about HIV transmission through breastmilk, identify and discuss issues to be addressed by decision-makers, and outline steps to implement an infant-feeding policy including monitoring and evaluation aspects.

HIV and Infant Feeding: a guide for health care managers and supervisors. WHO/FRH/NUT/CHD/98.2, UNAIDS/98.4, UNICEF/PD/NUT/(J)98-2.
This guide provides an overview of mother-to-child transmission, discusses feeding options for HIV-positive women, and describes practical steps for implementing services. It also includes information on voluntary and confidential HIV counselling and testing, antiretroviral therapy, breastfeeding and distribution of breast-milk substitutes.

Long LD, Ankrah EM. Women's Experiences with HIV/AIDS --An International Perspective. New York: Columbia University Press, 1997.
This book examines the experiences of women from diverse cultures and backgrounds in the context of the socio-economic and cultural factors that facilitate HIV infection. By combining international research data with personal accounts of women's experiences worldwide, the authors explore these complex factors to define a cohesive policy agenda and plan for action.

Preble EA, Elias EJ, and Winikoff B. "Maternal health in the Age of AIDS: implications for health services in developing countries". AIDS CARE, Vol. 6. No. 5. 1994.
This journal article provides an overview of both the technical and service-related issues which intersect the MCH and HIV/AIDS fields. The ways in which HIV/AIDS can have an impact on fertility regulation, pregnancy, delivery, and the postpartum period are discussed.

KIT, SAFAIDS,World Health Organization. Facing the Challenges of HIV/AIDS and STDs: a gender-based response. Geneva: WHO, 1995.
This resource pack aims to help policy-makers, programme planners and implementers and service providers in developing a gender-based approach to HIV/AIDS and STDs. A booklet, that is included in the pack, outlines the global epidemiology of HIV infection, explores the basis of a gender-based response, and suggests suitable strategies for such a response. Also included are tool cards and posters designed to promote gender awareness in relation to HIV/AIDS and STDs among men, women and youth.

Dixon-Mueller R, Wasserheit JN. The Culture of Silence: Reproductive Tract Infections Among Women in the Third World. New York: International Women's Health Coalition, 1991.
This pamphlet addresses the problem and scope of reproductive tract infections and has been important in bringing the issue to public attention.

Germain A, Holmes KK, Piot P, Wasserheit JN. Reproductive Tract Infections: Global Impact and Priorities for Women's Reproductive Health. New York: Plenum Press, 1992.
This collection of papers provides an overview of RTIs outlining the challenges for international policy, programs and research and current and future dimensions of the problem in the third world. It covers programmatic issues and actions required at various levels.

Sexual and Gender Violence

World Health Organization. Female Genital Mutilation A Joint WHO/UNICEF/UNFPA Statement. Geneva, 1997. Also available in French.
The joint statement by the World Health Organization, the United Nations Children's Fund, and the United Nations Population Fund confirms the universally unacceptable harm caused by female genital mutilation, or female circumcision, and issues an unqualified call for the elimination of this practice in all its forms.

Dorkenoo E. Cutting the Rose: Female Genital mutilation: the practice and its prevention. London: Minority Rights Group, 1994.
This book presents a comprehensive discussion of the issues surrounding the practice and prevention of female genital mutilation. Also included is an update of prevention work being done in Africa and examples of effective strategies and activities currently underway.

Toubia N. Female Genital Mutilation: A Call for Global Action. New York: Rainbo+, 1995.
This book discusses the practice of FGM in a cultural, health, and rights context. Included are illustrations describing types of female circumcision.

Heise L. Violence Against Women: The Hidden Health Burden. Washington DC: World Bank, 1994.
This paper brings together existing data on the dimensions of violence against women worldwide and reviews available literature on the health consequences of abuse. To assist policy-makers and programme planners, it explores interventions in primary prevention, justice system reform, health care response, programs to assist victims, and treatment and re-education programs for perpetrators.

World Health Organization. Elimination of Violence Against Women: In Search of Solutions. Document WHD/FRH/WHD/97.38.
An Executive Summary of a WHO/FIGO Workshop on violence against women containing a summary of the papers and case studies presented, conclusions and recommendations.

World Health Organization. Violence Against Women: an information kit. Document WHO/FRH/WHD/97.8
The package focusses on violence in families, rape and sexual assault, violence against women in situations of conflict and displacement, as well as violence against the girl child.

Emergency Situations

UNHCR. Reproductive Health in Refugee Situations: An Inter-agency Field Manual. 1999.
This manual aims to assist all concerned parties – governments, non-governmental organizations, academic institutions, the United Nations and its specialized agencies – in introducing and implementing, monitoring and evaluating reproductive health-related interventions that affect women, adolescents and men in refugee and other emergency situations.

World Health Organization. When Mother and Baby are Refugees. Safe Motherhood Newsletter Issue 23. 1997 (1). Also available in French.
This issue of Safe Motherhood looks especially at mothers and infants in situations of war and disaster. It particularly focusses on motherhood among women refugees.

Reproductive Health for Refugees Consortium. An Introduction to Reproductive Health in Refugees Settings: A One Day Awareness Building Module.
This interactive training module is designed to address the main components of a reproductive health programme for refugees. The curriculum can be used with relief workers, camp managers or headquarters staff of relief agencies.

Reproductive Health for Refugees Consortium. Refugees and Reproductive Health Care: The Next Step.
This documents offers the Consortium's views on how best to focus and channel the reproductive health community's efforts to meet the needs of refugees and internally-displaced persons around the world. Focussing on nine countries, it provides information on general and reproductive health conditions, camp conditions, the agencies assisting refugees, and recommends "the next step" for each country to improve the situation.

UNHCR. Reproductive Health in Refugee Situations. How to Guide: Community Based Response to Sexual Violence. 1997.
Based on real-life experience at the Ngara refugee camps in Tanzania, this document aims to share lessons learnt in involving women refugees in addressing the problem of sexual violence in Ngara. Additional support was provided by the UNHCR staff from protection and community services, non-government organizations and local government authorities including the police, the Ministry of Home Affairs, and relevant people within the justice system.